

Youth vocational education learns - students' perception of the united nations' sustainable development goals

Educação profissional de jovens aprendizes - percepção dos estudantes sobre os objetivos de desenvolvimento sustentável da organização das nações unidas

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Abstract

The interest in preserving the planet for future generations has become a global concern. With this, actions must be worked together to meet this desire. Thus, in 2015, the United Nations 2030 Agenda presented 17 Sustainable Development Goals (SDGs). These Goals encompass different areas of society, such as education, work, and health. In order to analyze the students' perception of which SDGs should be emphasized in the professional education of young apprentices who work as administrative assistants, a form with open questions was applied. The form showed that SDGs 3, 4, 5, 8, 9, and 16 are considered the most relevant to be worked on in forming these subjects. In addition, educational practices are suggested, which must be carried out collaboratively between the teaching unit, company, and public management.

Keywords: Agenda 2030; Professional Education; Young apprentice; Industrial learning.

Resumo

O interesse em preservar o planeta para as gerações futuras tornou-se uma preocupação global. Com isso, ações devem ser trabalhadas em conjunto para atender este anseio. Dessa forma, em 2015 foi apresentada a agenda 2030 da Organização das Nações Unidas, com 17 Objetivos de Desenvolvimento Sustentável. Estes Objetivos englobam as diferentes áreas da sociedade, como a educação, trabalho e saúde. Com o objetivo de analisar a percepção dos estudantes sobre quais ODS devem ser enfatizados na educação profissional dos jovens aprendizes, que atuam como assistentes administrativos, foi aplicado um formulário com questões abertas. No qual, evidenciou que os ODS 3, 4, 5, 8, 9 e 16 são considerados os mais relevantes a serem trabalhados na formação desses sujeitos. Além disso, são sugeridas práticas educacionais, que devem ser executadas de forma colaborativa entre a unidade de ensino, empresa e gestão pública.

Palavras-chave: Agenda 2030; Educação Profissional; Jovem Aprendiz; Aprendizagem Industrial.

1. INTRODUCTION

Establishing international agreements as a function of the social development of countries is of the utmost importance; one example of this is the United Nations (UN) 2030 Agenda that was launched in 2015 and contains 17 Sustainable Development Goals (SDGs), 169 targets, and 230 indicators (GOMES, 2020; PIMENTEL, 2019). The UN 2030 Agenda was created to ensure a safe and sustainable future for the next generations, aiming at the planet's sustainable development through environmental, social, industrial, and technological components (GOMES, 2020).

One of the 17 goals established is that of quality education — SDG 4, and this goal is considered more than an end in itself; it is considered paramount to achieving the others (UNESCO, 2018). In data published on July 11, 2022, on the website SDG Brazil (2022) and operated jointly by the Brazilian Institute of Geography and Statistics (IBGE) and the Special Secretariat for Social Articulation, it informs that out of the 254 indicators established by the UN, 111 of them have been produced, 75 are under analysis/construction, 58 have no data, and 10 do not apply to Brazil.

These indicators point to each country's progress concerning the established goals. In this case, Brazil must intensify its actions to achieve better rates. Nonetheless, they are not just numbers, and the SDGs contribute to the decision-making process when formulating strategies aimed at achieving the goals of the 2030 agenda (KRONEMBERGER, 2019).

Thus, young people have a fundamental role in the challenge of guaranteeing adequate conditions for survival in the future. Their insertion in the labor market must be directed in such a way that they become workers who are aware of their responsibilities. To this end, in 2000, the young apprentice program

was regulated by Brazilian law no. 10.097/00 as an incentive to prepare young people for the labor market. Andrade, Jesus, and Santos (2016) reported that young people participating in this program could perform work activities with greater efficiency and quality. Still, the authors highlighted the importance of expanding the national apprenticeship programs for national economic growth.

Thus, the National Service for Industrial Learning (SENAI) is the organization that trains young workers for the linked companies (SILVA, 2010). For Wessler and Gonçalves (2021, p. 18-19)

All this knowledge and know-how engineering make it possible to offer students, in the context of the classes, the development of basic, technical, and social-affective abilities, generating meaning in the integral and preparatory formation to exercise the professional activity in assertive decision-making directed to the professional profile designed in the school curriculum.

The professionals investigated in the study are young apprentices working as administrative assistants, who, according to the Brazilian Occupation Code CBO 4110-10, perform activities in various administrative areas such as human resources, finance, and logistics.

Hence, given the scarcity of research on the theme aligned to this educational context and the potential contribution of identifying which SDG should be emphasized to define pedagogical practices and organizational strategies, the following research question was defined: **“What is the perception of young apprentices of the administrative assistant course in relation to the UN Sustainable Development Goals that should be worked on in their professional education?”** In addition, three guiding questions contribute to elucidating the problem:

1. Which of the UN's SDGs are related to students' education in the administrative assistant course?
2. What practices should be worked on in the students' professional education to achieve the goals?
3. Which actors must participate in achieving the established practices?

Next, the theoretical framework, methodological procedures, results, and conclusion sections are presented.

2. THEORETICAL FRAMEWORK

2.1 Professional Education

Education is a topic of interest in various societies — or at least it should be. Through education, we deal with the challenge of preparing the next generations, which are responsible for ensuring better living conditions for man and the planet. Numerous challenges are often convergent due to the disputes for society projects desired for future generations (FERES, 2018).

Regarding professional education, it is common to think that only undergraduate courses are the first option. However, Moreira et al. (2020) stated that professional education has been conquering space and gradually growing in recent years, since people see professional courses as the opportunity of entering the labor market, a chance to start over, or even to continue their education.

In the Brazilian context, professional education includes programs for the initial and continuing education of workers, technical education that is subsequent and integrated with high school, the variants of initial and continuing education and technical education when given in conjunction with youth

and adult education, as well as technological graduation (MACHADO, 2008).

For Castro (2020), professional education aims to promote the integration between the school environment and work by offering courses focused on society and labor market demands. Fonseca and Lima (2021) argue that professional education contributes to the reduction of inequalities in preparing individuals for professional development and the training, specialization, and qualification of subjects that desire to become professionalized to join the labor market. In addition, vocational courses also play an essential role in increasing the schooling of the subjects, making them active and critical individuals.

Professional education can open doors for individuals who did not have the opportunity to take a college-level course a priori, assisting in inserting these subjects into the labor market. It may stimulate them more and more to professional development through courses and experiences, in addition to developing competencies that go beyond techniques and mechanical procedures (MOREIRA et al., 2020).

For Feres (2018), the perspectives regarding the future of education and work in the context of the fourth industrial revolution present various unknown aspects and no answers. For the author, by considering all the transformations that are taking place, education systems in Brazil must strengthen applied scientific studies to identify and overcome the main educational challenges that limit education development, often due to obsolete pedagogical practices.

SENAI is one of the leading organizations providing professional education in Brazil; it is the largest private professional education complex in Latin America. According to the data provided on its platform, it has trained over 73 million workers in 28 areas of industry since its creation in 1942.

2.2 UN 2030 Agenda

In the second half of 2015, heads of state and government met at the United Nations headquarters to decide on the global SDGs. In this context was that the UN 2030 Agenda was created; this document was prepared by the 193 member countries of the United Nations, including Brazil, to create a fairer and more sustainable world (BURTET, 2022).

According to Pimentel (2019), the 2030 Agenda for Sustainable Development contains 17 SDGs, 169 targets, and 230 indicators that constitute an action plan for the planet, individuals, and prosperity with medium- and long-term planning tools that seek national alignment of social, environmental, and economic policies, which must be met by 2030.

Table 1 - Goals defined in the UN's 2030 Agenda

SUSTAINABLE DEVELOPMENT GOALS	DESCRIPTION
Goal 1 - No poverty	End poverty in all its forms everywhere
Goal 2 - Zero hunger and sustainable agriculture	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
Goal 3 - Good health and well-being	Ensure healthy lives and promote well-being for all at all ages
Goal 4 - Quality education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5 - Gender equality	Achieve gender equality and empower all women and girls
Goal 6 - Drinking water and sanitation	Ensure availability and sustainable management of water and sanitation for all
Goal 7 - Clean and affordable energy	Ensure access to affordable, reliable, sustainable, and modern energy for all Produced Under analysis/construction No data Not applicable to Brazil
Goal 8 - Decent work and economic growth	Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all
Goal 9 - Industry, innovation, and infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation
Goal 10 - Reducing inequality	Reduce income inequality within and among countries
Goal 11 - Sustainable cities and communities	Make cities and human settlements inclusive, safe, resilient, and sustainable
Goal 12 - Responsible consumption and production	Ensure sustainable consumption and production patterns
Goal 13 - Climate action	Take urgent action to combat climate change and its impacts (recognizing that the United Nations Framework Convention on Climate Change [UNFCCC] is the primary international intergovernmental forum for negotiating the global response to climate change)
Goal 14 - Life below water	Conserve and sustainably use the oceans, seas, and marine resources for sustainable development
Goal 15 - Life on land	Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

SUSTAINABLE DEVELOPMENT GOALS	DESCRIPTION
Goal 16 - Peace, justice, and effective institutions	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels
Goal 17 - Partnerships for the goals	Strengthen the means of implementation and revitalize the global partnership for sustainable development

Source: SDG Brazil (2022)

The UN 2030 Agenda involves a plethora of fields of action, which seek eradicating poverty and hunger, health and well-being, education, gender equality, access to clean water and sanitation, clean energy, decent work, sustainable economic growth, reducing social inequalities, sustainability of life, innovations in infrastructure, responsible consumption, healthy cities, climate responsibility, reducing inequalities and effective institutions and social peace (MONTEIRO, 2020).

Belluzzo (2018) reported that the UN 2030 Agenda assumes that all people, regardless of their gender, age, race, ethnicity, and people with disabilities, migrants, indigenous peoples, children, youth, especially individuals in situations of vulnerability, must have access to education and learning opportunities throughout their lives that enable them to acquire the knowledge and skills necessary to actively participate in society.

In this study, the field of investigation emerges from the educational context, since according to UNESCO (2017), the 2030 Agenda points out that education is more than a goal in itself but is also the means of achieving all the other goals and is considered a primary strategy in achieving the other SDGs.

In this sense, Pimentel (2019) argued that Brazil has advanced in universalizing access to basic education, although it must make more investments to ensure the education of individuals at the right age. The author added that the National Education Plan and the Common Curric-

ular Base are the primary means of achieving the SDGs that concern quality education, seeking improvements for education in the country, and the appreciation of teaching professionals.

3. METHODOLOGICAL PROCEDURES

Given the above, a qualitative approach was adopted for the investigation to interpret the perception of the subjects that, in this case, are young apprentices linked to SENAI-PB, in the modality of Industrial Learning, Bayeux-PB unit, in relation to the SDGs to be worked on in their professional education (COOPER, 2003; MERRIAM, 2009).

This is an exploratory and field study (COOPER, 2003; MARCONI; LAKATOS, 2003), in which a form with open questions was used individually with educational resources (cardboard, colored pens, and a ruler) in teams to investigate the phenomenon. Data collection occurred in June 2022 with 20 students from the administrative assistant course in the subject Socio-Professional Relations. The study was conducted in two moments: the first moment occurred after a lecture on the 2030 Agenda by the teacher, lasting roughly 120 min, in which the class was asked, individually, to answer the following questions on an A4 paper:

- Which of the 17 Sustainable Development Goals established in the UN 2030 Agenda should be worked on with emphasis during your professional education at SENAI? Justify.

- According to the objective(s) listed in the previous question, please propose practices that contribute to achieving the indicated objective(s)?

The time allotted for the activity was 120 min and it took place in the classroom. The second moment occurred in the next class in the library of the unit, with the participation of the 14 students, who were divided into 4 groups. With the groups formed, the teacher asked the groups to answer the following question on a card:

- Please indicate which actors must be involved for the listed practices to be carried out.

It is worth noting that the participants of the second moment were the same as the previous one, although 6 students were absent on the day. The time to develop the activity was 240 min due to the groups' need to organize the individual answers from the first moment into a single document (cardboard) to then develop the proposed question collaboratively with the other group members.

Because of this, all documents with the students' answers were gathered for data analysis. This process was guided by the content analysis method of Bardin (2011). This type of analysis involves an analytical description, which follows a systematic and objective process of the content of the messages (BARDIN, 2011). In addition, it is premised on analyzing and interpreting the textual material, such as the students' written answers.

A categorical analysis technique was used, which "aims to consider the totality of a "text" by passing it through the sieve of the classification and the census according to the frequency of presence (or absence) of items of meaning" (BARDIN, 2011, p. 42–43). The categories defined a priori are the objectives listed in Table 1. To maintain the confidentiality of the respondents, codes were adopted to represent their names (i.e., S (Student) + order of analysis (1, 2, ..., 20)).

4. RESULTS

The parent educational system must be committed to the goals laid out in the UN 2030 Agenda. For this, one must know the perception of the people involved in the process (e.g., students), whose goals must be worked on with greater emphasis in their professional education (KRONEMBERGER, 2019). The participants can relate not only to their experiences in the classroom but to those within the company in the role of young apprentice. Thus, it was possible to observe during the activity that the students were constantly relating the two environments (i.e., SENAI and the company).

Hence, these two environments must cooperate and align the strategies to ensure the actions are effective. This position was exposed by S11, who reported that SENAI and the company where he works have the responsibility to train young people for the job market. Nevertheless, Silva (2010, p. 413–414) pointed out that "the approximation of industries with professional training institutions, especially SENAI, contributes to this reality since companies can imprint the exact configuration that interests the productive process in their training courses," meaning professional education does not exclusively occur in a single environment.

In this training process, six SDGs must be worked on with greater emphasis, according to the students' perception, which are SDG 3 (health and well-being), SDG 4 (quality education), SDG 5 (gender equality), SDG 8 (decent work and economic growth), SDG 9 (industry, innovation, and infrastructure), and SDG 16 (peace, justice, and effective institutions). Among the six, the one with the highest occurrence in the answers was SDGs 4 and 8.

Based on the universal right to access to education, on the formation of citizens aware of their rights and duties, and qualified for the labor market, the subjects point out this SDG as

one of the most relevant in their formative process. The approximation of education with the market has been highlighted in Brazil's educational policies since the 1990s, with the approval of the Law of Directives and Bases of Education of 1996, which directs education to approach the training and qualification of students for the world of work (BRASIL, 1996). Because of this, for S7, SDGs 4 and 8 are complementary, as both aim to provide more job opportunities.

The importance of SDG 8 in their training is related to the course proposal (administrative assistant), productivity at work without neglecting the quality of life, reducing the number of young people without professional occupation, and awareness of their rights and duties, such as developing the geographical

space, with attention to environmental preservation and economic stability.

Moreover, for S4, SDG 3 is of utmost importance because to perform the activities, whether at work or SENAI, it is necessary to maintain commitment and satisfaction. Moreover, mental health has been on the agenda as an influential factor in productivity and job security (S18). In addition, ensuring gender equality and justice, as indicated by SDGs 5 and 16.

In this context, industries assume a key role: to develop and implement strategies that meet these desires (S12), as addressed in SDG 9. In order to synthesize the data, Table 2 is listed below.

Table 2 - Referral to guiding question 1

GOALS	POSITIONING
SDG 3 - Health and well-being	<ul style="list-style-type: none"> • Job satisfaction (S4) • Mental health (S18)
SDG 4 - Quality education	<ul style="list-style-type: none"> • Education should be a basic right for everyone (S1, S2, S7, S8, S9) • Human development (S4, S8) • Professional qualification (S4, S8, S9, S18, S20)
SDG 5 - Gender equality	<ul style="list-style-type: none"> • Form women who are aware of their rights (S14) • Not to harm people because you do not think you are competent (S18)
SDG 8 - Decent work and economic growth	<ul style="list-style-type: none"> • It is directly related to the area of professional activity in SENAI (S2, S3, S6, S10, S11, S12, S15, S19) • Increase workers' productivity (S7, S12, S13) • Quality of life at work (S8) • Reduce the number of unemployed young people (S11, S14) • Responsibility with the environment (S13) • To inform young people of their rights and duties regarding work (S14) • Regional impact (S17) • Financial security (S17)
SDG 9 - Industry, innovation, and infrastructure	<ul style="list-style-type: none"> • Understand the industry scenario to create fluid and efficient strategies (S12)
SDG 16 - Peace, justice, and effective institutions	<ul style="list-style-type: none"> • Not to be corrupted by corrupting systems at work (S5) • Develop projects and initiatives with responsibility, resilience, and ethics (S5)

Source: Survey data (2022)

The relationship between the students' positions in the table above, referring to the first question, indicates that the six SDGs listed are consistent with the competencies and skills required in their education. Nonetheless, it is pertinent for educational practices to be adopted to explore the potential of these goals in the teaching-learning process. These practices must be worked through events, lectures, debates, organizational policies, professionalizing courses, and data collection to have a panorama of the progress of the adopted measures.

Table 3 - Referral to guiding question 2

GOALS	PRACTICES
SDG 3 - Health and well-being	<ul style="list-style-type: none"> • Providing 10-min breaks at work to perform wellness practices (S4) • Training to correctly use Personal Protective Equipment (PPEs) (S4) • Conducting leafleting campaigns on contagious disease prevention (E4) • Investing in mental health programs (S18)
SDG 4 - Quality education	<ul style="list-style-type: none"> • Collecting data to allow access to all people of different ages (S1) • Training and valuing education professionals (S1, S8, S10) • Charging a small fee from private educational institutions to finance education in less developed and difficult-to-reach cities (S1) • Adapting the structures to allow access to people with disabilities (S1, S8) • Involving the community in the debates and actions of the teaching unit (S8) • Investing in the supply and diversity of vocational courses (S9, S16, S20) • Include pedagogical strategies that involve the use of technologies (S13)
SDG 5 - Gender equality	<ul style="list-style-type: none"> • Working by raising awareness on harassment at work (S14)
SDG 8 - Decent work and economic growth	<ul style="list-style-type: none"> • Investing in young talents in programs such as Young Apprentice (S2, S11) • Including job openings targeted at people with social vulnerability (S3) • Training the education team for the market needs (S6, S13) • Providing lectures on the Brazilian economy, economic growth, and labor rights (S6, S10, S15) • Aligning the pedagogical strategies with the current market needs and including the use and training in using new digital technologies (S12, S13, S15, S19),
SDG 9 - Industry, innovation, and infrastructure	<ul style="list-style-type: none"> • Performing administrative practices in the educational institution to encourage solving industry problems and experiencing the practice in both environments (company and SENAI) (S12) • Organizing events that address the sustainability theme (S14)
SDG 16 - Peace, justice, and effective institutions	(No practices suggested by the participants were identified)

Source: Survey data (2022)

The table above summarizes the answers found for the second guiding question, in which it is possible to explore two important points in the literature: The first is regarding the fact that quality education is the basis to achieve the other goals (PIMENTEL, 2019), meaning that the Brazilian government must provide inclusive and equitable education, especially vocational education, which makes SDG 4 one of the possible challenges to achieve the established goals. The second is related to the need to explore data in an integrated system that allows information sharing and cooperation among nations, as pointed out by Kronemberger (2019, p. 44)

SDG indicators must be used by decision-makers and managers, both public and private, in planning actions and undertakings, in the formulation of public policies. The appropriation of SDG indicators by these actors is essential to ensure both the continuity (and evolution) of their production and the application of the observations and conclusions obtained from them in the effective pursuit of achieving the 2030 Agenda.

Given this context, the last guiding question points out that the participants indicated that in order to reach the objectives in Table 2 and the practices in Table 3, cooperation between SENAI, private companies, public management (the Ministry of Education, Labor, and Infrastructure) is of the utmost importance, that is, as previously discussed, the actions are not isolated.

5. CONCLUSIONS

This study sought to answer the following research question: “What is the perception of young apprentices of the administrative assistant course regarding the UN’s Sustainable Development Goals that should be worked on in their professional education?” The theme was investigated utilizing documents, which resulted from the teaching activity.

As a result, we identified that SDG 3 (Health and Well-being), SDG 4 (Quality Education), SDG 5 (Gender Equality), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation, and infrastructure), and SDG 16 (Peace, Justice, and Effective Institutions) must be worked on with an emphasis on training young apprentices in the administrative assistant course, especially regarding SDGs 4 and 8 as they involve their professional performance.

Next, educational practices were suggested to be developed through events, lectures,

debates, organizational policies, and vocational courses. An integrated information system among teaching units was pointed out as one of the practices to be implemented for sharing data and information about the actions taken to comply with the 2030 Agenda, to be introduced and shared in other teaching environments.

Lastly, for the students, the responsibility to comply with the UN’s 2030 Agenda is everyone’s duty. Organizations such as SENAI, private companies, and the public administration must collaboratively take on this cause to succeed. Therefore, future research should cover new vocational courses to implement new strategies according to the area and involve new subjects in the research, including school managers, course coordinators, teachers, educational supervisors, and public and private company managers.

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