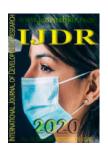


Available online at http://www.journalijdr.com



International Journal of Development Research Vol. 10, Issue, 09, pp. 40366-40372, September, 2020 https://doi.org/10.37118/ijdr.19860.09.2020



RESEARCH ARTICLE

OPEN ACCESS

EDUCATION FOR IMPACT, VOCATIONAL TRAINING AND LIFE-LONG LEARNING: AN EXPERIENCE REPORT FROM LEADERS WHO TRANSFORM PROGRAM IN BRAZIL

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ARTICLE INFO

Article History:

Received 20th June 2020 Received in revised form 27th July 2020 Accepted 14th August 2020 Published online 30th September 2020

Key Words:

Professional Training, 21st Century Skills, Competency-Based Curriculum.

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ABSTRACT

This article aims to present an experience report of the Leaders who Transform Program, implemented by the Postgraduate Program of the University of Fortaleza, in the State of Ceará, Brazil. That Program was developed a way to respond to the social and jobmarket demands of the 21st century. It is based on three pillars: 1) The development of 21st skills; 2) excellent technical training; 3) knowledge transfer through final projects that address social challenges. In order to design and implement this program, first we needed to study the profile and skills of the professional of the 21st century, to research innovative schools around the world that could serve as role models and to understand the human empowerment cycle. Thus, the Leaders who Transform Program presents a a competency-based curriculum that is oriented to solving real-life social challenges through the presentation and execution of actions, projects or products that aim to transform realities

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Citation: Lilia Maia de Morais Sales. 2020. "Education for impact, vocational training and life-long learning: an experience report from Leaders who Transform Program in Brazil", International Journal of Development Research, 10, (09), 40366-40372.

INTRODUCTION

In the context of the 21st century, human relations are mediated by technology, directly impacting professional environments and the way products and services are offered. From the transformation of these dynamics, there is a need for an adaptation in the training of these professionals. Thus, we began by researching the skills most needed by the 21stcentury professional, considering social and work demands widely. Then we researched methodological strategies for the development of these competences. Based on the results, we present the experience report of the Leaders who Transform Program, implemented by the Postgraduate Programs of the University of Fortaleza (Unifor), which has a curriculum oriented to solving real problems through the presentation of actions, projects or products, with the development of competencies as a means.

The Problem: The rise of the diffusion of technologies, in their most varied forms and the most diverse areas of knowledge, begins what Schwab¹

¹Schwab, K. (2016). A quarta revolução industrial. São Paulo: Edipro.

called the Fourth Industrial Revolution. This moment is characterized by the widespread adoption of technologies such as artificial intelligence, the internet of things, energy storage, newmeans of transport, biotechnology, and nanotechnology. As a consequence, the last decades have seen the modernization of workspaces and the increased demand for professionals capable of responding to the challenges imposed by this context². In addition to changes in the way companies work, there are deep changes in human behavior. The increasing use of wearable (technologies that can be worn, such as watches) that connect with cell phones, computers, and televisions, change the way the individual relates to himself and the other, directly impacting the way he communicates, works and consumes. Combined with human transformation, there is a transformation in the market, which now has access

²Balcar, J. (01 de 2014). Soft skills and their wage returns: overview of empirical literature. Review of Economic Perspectives, 14(1), pp. 3-15; Carnevale, A. (2013). 21st century competecies for college and career readiness. Broken arow: National Career Development Association, pp. 1-9; Eger, H., & V. Grossmann. (2004). Noncognitive abilities and within-group wage inequality. Bonn: Institute for the Study of Labour; International Labour Organization. (2008). Skills for improved productivity, employment growth and development. International Labour Organization Conference (p. online). Geneva: International Labour Organization.

to an unimaginable number of data and information, called Big Data. Big Data can be conceptualized as a large volume of structured, semi-structured or unstructured data that can be exploited to make it possible to obtain information³. Researchers estimate the number of connected devices in 2020 will exceed 50 billion⁴. Thus, using the internet of things, repetitive activities can be performed by computers and robots, faster and more accurately than if they were performed by humans. It is estimated that the economic impact of these will correspond to more than US\$11 trillion globally⁵.

A study carried out by the consulting firm IDados crossed data from the National Continuous Household Sample Survey (PNAD-Contínua), conducted by the Brazilian Institute of Geography and Statistics (IBGE) with data from a study by the University of Oxford, which analyzes the risk ranges of automation of professions⁶. The results showed that 58.1% of formal and informal jobs in Brazil could be replaced by machines in the next ten to 20 years. This percentage corresponds to the absolute number of 52.1 million jobs. These are jobs that do not require originality and creativity to be exercised, as well as do not require interpersonal skills. The professions that present the lowest risk of being replaced by technology are those that demand originality, creativity, solving complex problems, in addition to socio-emotional skills. These professions correspond to a total of 20.5 million jobs or 22.8% of existing jobs in Brazil. Despite these data, it is identified that replacing humans with machines in certain functions will not necessarily correlate with employment and unemployment rates. This fact is due to the expectation of creating new areas of activity for people who, at this moment, will be replaced. The World Economic Forum (2019) points out that the challenge will not be the creation of new jobs, but the qualification of the people available to fill them. Given this context, the need to review the educational model adopted until then was realized as a way of preparing the student for the social and labor market demands arising from this reality. Then, we began to study the skills needed by 21st-century professionals and the best way to develop them.

The data

Researches that address the possibility of replacing humans with machines in certain functions already points to the trend the functions that will remain performed by humans and those that will be created will require skills such as creativity and interpersonal relationships. From this clue, we began to investigate what would be the most necessary skills for the 21st century professional. The American consulting company,

³ LANE, Julia (Org.). *Privacy, Big Data and the public good*: frameworks for engagement. Cambridge: Cambridge University Press, 2014.

Accenture (2013)8, issued a report entitled "Skills and Employment Trends Survey: Perspectives on Training", for which it interviewed 400 executives from large national companies, intending to evaluate the forms of hiring and training strategies of these. Among the various results exposed by the survey, it is pertinent to highlight those measured from the question: "What skills do you believe candidates need most to work in your company?" The main skill mentioned was problem-solving, mentioned by 78% of respondents as the most necessary in their employees. This was followed by leadership skills (75%), communication (73%), technology (73%), people or team management (71%), knowledge or experience in the specifics of the industry (71%), and creative thinking (69%). It appears from this research that among the skills cited, the specific technical knowledge, although important, is in fifth place, tied with the management of people or teams.

Another relevant result was presented by the Wall Street Journal⁹ (KORN, 2014), which indicates that since 2009, the number of mentions to the critical thinking skill, as desirable, in job advertisements has doubled. The newspaper highlights the conceptualization given to this ability by Michael Desmarais, from the Goldman Sachs Group: "Do they [the candidates] use the information available in their journeys to reach a conclusion or decision? How is the information used"? In the same vein, Dan Black, recruitment director at Ernst & Young, defines skill as the "ability to work with data, accumulate it, analyze it and synthesize it, to arrive at balanced conclusions and intelligent decisions." (KORN, 2014, online). The World Economic Forum, based on data presented by research entitled The Future of Jobs¹⁰ (2016), points in the same direction. The ten most needed skills for the labor market in 2020 would be in descending order (from most necessary to least necessary): complex problem solving, critical thinking, creativity, people management, teamwork, emotional intelligence, decision making, service orientation, negotiation, and cognitive flexibility. The same survey was carried out for 2015 and some differences were noted. The first of them was the rise of the creative skill, which was considered the tenth most needed quality in the job market for 2015, while for 2020 it is expected to occupy the position of the third most needed skill. Another difference was the addition of the emotional intelligence skill, which in 2015 did not appear on the list, but for 2020, this skill appeared as the sixth most needed (Table 1).In the brazilian context, the Examemagazine¹¹ (2016) revealeda research led by AfferoLab, a corporate education consulting company. The investigation presented a list of thecompetencies identified as the scarcest in the Brazilian labor market. The skills listed, in order from highest to lowest

⁴Burhan, M., Rehman, R. A., Khan, B., & Kim, B.-S. (2018). IoT Elements, Layered Architectures and Security Issues: A Comprehensive Survey. *Sensors*, 1-37.

⁵Rose, K., Eldridge, S., & Chapin, L. (2015). *The internet of things: an overview. Understanding the issues and challenges of a more connected world.* Internet Society. Geneva: Carolyn Marsan. Fonte: ISOC. Available from: https://www.internetsociety.org/wp-content/uploads/2017/08/ISOC-IoT-Overview-20151221-en.pdf. Accessed on: 30 mar. 2017.

⁶Villas-Bôas, B. (2019). Máquinas podem ficar com metade dos empregos no Brasil. *Valor Economico*. Available from: https://valor.globo.com/carreira/noticia/2019/10/03/maquinas-podem-ficar-com-metade-dos-empregos-no-brasil.ghtml Accessed on: may 2019

⁷Pissarides, C. (2019). Over half of the world's jobs are replaceable by a robot - is yours? . World Economic Forum. Available from: < https://www.weforum.org/agenda/2019/12/automation-4ir-technology-robot-work-career/> Access on: dec 2019.

⁸Accenture. (2013). Accenture Skills and Employment Trends Survey: Perspectives on the Perspectives on Training. Dublin: Accenture. Available from: https://www.accenture.com/sk-en/~/media/Accenture/Conversion-Assets/DotCom/Documents/Global/PDF/Strategy_3/Accenture-2013-Skills-And-Employment-Trends-Survey-Perspectives-On-Training.pdf. Accessedon: may 2013.

⁹Korn, M. (2014). Bosses Seek 'Critical Thinking,' but What Is That? *Wall Street Journal*, online. Available from: https://www.wsj.com/articles/bosses-seek-critical-thinking-but-what-is-that-1413923730. Accessedon: dec 2014. ¹⁰World Economic Forum. (2016). *The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution*. Retrieved maio 2016, from World Economic Forum: http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf

¹¹Gasparini, C. (2016, october 31). *As 10 competências mais raras entre profissionais brasileiros*. Retrieved november 2016, from Revista Exame: https://exame.abril.com.br/carreira/as-10-competencias-mais-raras-entre-profissionais-brasileiros/

scarcity, were (table 2): complex problem solving, critical thinking, entrepreneurial attitude, creativity, ability to work with different cultures, ability to communicate orally and in writing, logical reasoning, ease of relating, ease to learn and math and numerical skills. Given these data, we realized the need to develop soft skills primarily, combined with the technical skills of each area of knowledge. Thus, we designed a curricular program aiming to develop professionals who respond to the demands of the 21st century labor market, while being attentive and prepared to respond also to social demands.

The Proposal: Leaders who Transform Program: The design of the Leaders Who Transform Program started from the concern for creative, transformative education, capable of positively impacting society.It identified that the traditional educational model, based on the memorization of contents, fragmentation of knowledge, excessive specialization and a methodology centered on the figure of the teacher, which transmits information to students ¹² does not value the students' potential, it massifies knowledge, treating it as linear and not complex, it excludes student participation and discourages creativity. The curricula supported in the transmission of content do not allow the professional to develop the ability learning to learn, nor prepare him to overcome the challenges that transcend technical knowledge. Then, an educational model was developed that focuses on building knowledge to develop the student's potential to present ideas and carry out projects and products that impact society and build skills, from a broader and more integrated curriculum, in which it is possible to tune the student with society, providing him with an understanding of the current reality, in addition to allowing him to understand his crises and transformations.

The goal of a competence-based education is the fulldevelopment of the individual, working on all human capacities. Thus, there was no perceived incompatibility in the use of disciplines in the curriculum based on competences, since all activities were directed to the development of the professional profile outlined in the pedagogical project. Once we made the decision for the adoption of a competence-based curriculum focused on impact we started taking action to promotechanges in the pedagogical practices used by many teachers, who needed to be guided as to the use of learning strategies and methodologies aimingto achieve the learning objectives defined in the course design. Thus, it was necessary to adopt a creative posture and willing to take risks in order to face obstacles on the way to the complete implementation of the program, as an example, the transformation of organizational culture, resistance of students/teachers used to the traditional teaching model, investment in structure training, the qualification of administrative staff and faculty, in addition to the creation of new learning scenarios. Thus, the experience of curricular transformation conducted in the Postgraduate Program at the University of Fortaleza (Post-Unifor) is presented. The objective is to report the details of the methodological design and the curriculum development process that occurred in the last 8 years.

By presenting information about the process of designing and implementing this curricular model, it is intended that it can be evaluated as a potential model and alternative to the traditional educational model, which is still directed towards professional training almost exclusively technical. The intention is to

¹²Freire, P. (1979). *Pedagogia do Oprimido*. Rio de Janeiro: Paz e Terra.

demonstrate the feasibility of educational advancement concerning the traditional teaching model and the consolidation of comprehensive and adequate education to the needs of the labor market and society. For the restructuring of postgraduateprograms, the first step was to understand the main needs of society, professionals from the most varied areas of knowledge, understand what national and international research and institutions on education pointed out about the future of professions, about the skills needed by this professional, as previously presented. From this reading, we sought to draw the purpose of Postgraduateprograms. Because of the research, there was a need to train a professional committed to reality, horizontal, participatory, and inclusive leadership, with the ability to solve real problems, to work as a team, to develop ideas and creative actions that solve specific local challenges and global.

The purpose of Post-Unifor became: to develop people so that, through knowledge, they innovate, creating and implementing actions, projects or products that respond to concrete challenges of society and thus are responsible for positive local impacts, which may even gain scale and impact globally. Thus we created the purpose of leading to transform. "Leaders who Transform" became a philosophy, which became a methodology to be put into practice and, then, it became the postgraduate slogan for communicating the purpose. The Leaderswho Transform Programis based on three pillars: a) developing the skills needed by 21st-century professionals, commonly presented as soft skills; b) an excellent technical training; and c) the transfer of knowledge through the development of actions, projects, and products with an impact on society, as shown on figure 1. We also established that the proposed challenges should be directly or indirectly connected to the United Nations Sustainable Development Goals¹³.

Thus, students are encouraged to recognize themselves as agents of social transformation. For the implementation of the first pillar, a common core of subjects was devised for the courses in each area (Law, Technology, Health and Communication, and Management), in which themes such as creativity, complex problem solving, conflict management, entrepreneurship, communication, innovation, and project management are worked. Thus, all courses in all areas of knowledge are exposed to these topics. Priority is given to the adoption of participatory methodologies, especially in these disciplines, so that the student experiences the concepts addressed in class. For the second pillar, namely the technical qualification of excellence, the curriculum was organized into modules, with content updated and frequently reviewed by the group of teachers and coordinators. Priority is given to classroom practice, with case studies, problem-solving proposed by teachers, simulations, and project construction. Allied to classes at the university, we began to design extramural experiences, such as field classes, technical visits to national and international companies, and institutions and missions, so that students are attuned to the vanguard of each segment.

The third pillar is aimed at transferring the knowledge acquired throughout the student's journey, which is encouraged to observe real problems and propose solutions that will transform reality.

¹³The Sustainable Development Goals are part of the United Nations (UN) Agenda 2030, consisting of an agreement signed by the member states, with the main objective of eradicating poverty from the world.

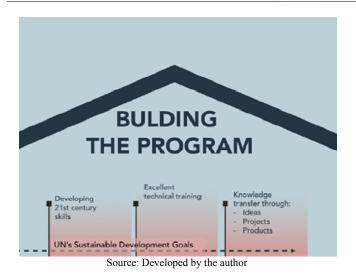


Figure 1. Leaders who Transform Program Illustrated

Table 1. Top Skills for 2020

TOP SKILLS IN 2020 (IN PARENTHESIS = POSITION IN 2015) Complex problem solving (1) 06 Emotional intelligence (-) 02 Critical thinking (4) 07 Decision making (8) 03 Creativity (10) 08 Service drive (7) 04 Human Resources (3) 09 Negotiation (5) Interpersonal relationship (2) Cognitive flexibility (-) 05 10

Source: World EconomicForum

Table 2. MostScarceSkills in Brazil

| Skills | Scarcity index (0-5) |
|--|----------------------|
| Complex problem solving | 4,03 |
| Critical Thinking | 3,63 |
| Enterpreunial attitude | 3,56 |
| Creativity | 3,56 |
| Working in a multicultural environment | 3,52 |
| Communication | 3,48 |
| Logical thinking | 3,39 |
| Interpersonal relationship | 3,34 |
| Ease to learn | 3,28 |
| Math and numerical thinking | 3,08 |

Source: Exame, 2016

Projects, actions or products must be directly or indirectly aligned with the Sustainable Development Goals. This pillar also establishes the importance of social impact while providing an approximation with the labor market. Students are encouraged to make diagnoses, propose solutions or improvement in the face of challenges presented by companies, public and private institutions, individuals or legal entities, non-governmental organizations or social impact businesses. The institutions, in turn, receive the collected information, diagnoses, concrete projects, suggestions for improvement through these actions, ideas, products that effectively impact and demonstrate the academy's ability to positively transform realities. To implement these objectives, specialization courses were grouped according to the area of knowledge with which they most directly related. Thus, the Communication and Management Schools were created; Law, Health, and Technology. Schools were created as a way to provide more holistic experiences to students, which transcend the specific course, in addition to printing the perception of universality and integration (as opposed to segmentation) of knowledge. The courses in each area of knowledge were linked by the pillars established by the Program. Until 2012, all Postgraduate courses were offered independently, with autonomous curricular matrices, based on specific contents in

the technical area. To report this experience, the pedagogical and management actions adopted for each pillar of the "Leaders who Transform" Program were analyzed. To achieve the objective of the first pillar, the development of the skills needed by professionals in the 21st century, the courses of each School started to share a common core of modules. These modules have, over the years, gone through an evaluation and realignment process based on the studies conducted by the management team, as well as the students' perceptions. These disciplines aim to develop the following skills: complex problems solving, creativity, systemic vision, decision making, negotiation and conflict management. In each School, these competencies are contextualized, according to the area of knowledge. For this, teachers are encouraged to adopt participatory methodologies. The common core occupies an average of 20 to 30% of the course load, which is paid for with 375 hours or more, depending on the pedagogical project.

The modules of this nucleus are taught in the classroom with students from different courses, aiming at the integration of the themes. The learning scenarios (classrooms with round tables, in the form of amphitheater and laboratories) were designed so that teachers can choose the installation according to the teaching methodology they will use in their classes. Besides, this methodological approach provides interaction between students in each group, who participate in the module in the same classroom. Thus, relationship networks are established, either to establish professional partnerships or to develop projects and, above all, to encourage teamwork. The process of implementing this curricular model in Post-Unifor went through a necessary reflection and maturation process based on the students' perceptions, used to the traditional educational model.

There were three recurring comments: 1) the number of students in the classroom, 2) use of participatory teaching methodologies and 3) the "absence" of technical content specific to the area in which the student was enrolled. Regarding the number of students in the classroom, students were uncomfortable because they were positioned at round tables, indicating that the use of individual tables would facilitate concentration in the explanation of the teachers. As for the use of participatory methods, the students stated that they preferred the traditional model because they felt they could absorb more information in expository classes. Finally, as the transversal subjects occupy almost 1/3 of the course load, the perception was that the focus of the course was lost, which, in the student's perception, should be concentrated on technical training. To overcome these challenges, measures were taken to improve communication about the "Leaders who Transform" Program, presenting the fundamentals that justified the creation of the common nucleus. Besides, each module begins with the presentation of its learning objectives. Also, the methodology and evaluation activities are reviewed for each module offer so that they present problems related to the courses that are in the classroom at that time, thus privileging content related to specific curricular matrices and integrating the curricula more cohesively. Some students, like João Romero, realize that these are the disciplines that have the greatest impact on their lives: "Among the various disciplines, elaborating communication, knowing how to list what is important to say and how to say it, all of this is the type of information that you end up bringing to you, into your

life. Applying it to professional and personal projects". ¹⁴ Student Simone Mayara Ferreira, in turn, remembers the exact moment when her work began, during one of the disciplines of this common core, which aims to develop the skills of creativity, systemic vision, teamwork and project management: "Me, with a team of five friends, had to think of something feasible in our area and innovative. So, we designed a law firm that would serve immigrants unable to afford this type of assistance. It was a simple idea that seemed possible. Then we had a course on refugee law and that was where it came in perfectly.

Professor Camilla already worked as a volunteer in this type of specific assistance for refugees. Then, with her help and the course coordinator, we put the project to work in a structure that already existed within the Pastoral do Migrante"15. Regarding the second pillar, the technical qualification of excellence, a curriculum review process has started. In addition to the transversal disciplines, the technical disciplines related to the specific competencies of each of the knowledge areas are also part of the curricular matrix of the courses. Since 2016, the group of managers and teachers has started a new stage in the curriculum development process, with a more refined look at the profile of Postgraduates, pedagogical strategies, and teacher training. To start, the management team carried out an analysis of the local and national context and market to assess whether the curriculum of the courses was meeting the needs presented. In the following stages of the curriculum review, disciplines were organized by learning objectives and/or work projects, aiming at solving real problems.

To this end, the Teacher Training project has advanced to train teachers on the use of participatory methodologies. It is understood that the curriculum is a collective construction and that teachers are fundamental pieces for driving changes in the educational perspective of an educational institution. To make effective pedagogical practices possible, it was necessary to strengthen the dialogue between coordinators, teachers, and students. We developed a project for the professional development of, involving the entire group of Postgraduate coordinators to raise awareness and train them as multiplying agents of our methodological guidelines among the teachers of the courses. This is a continuous-flow training project, carried out with professionals with studies in the field of Education, in which topics such as teaching and participatory methods, building learning experiences, and meaningful learning were addressed. For this project, there was an educational consultancy that accompanied the process during this period and that understood the importance of leading to transform. Still, for the implementation of the second pillar, in addition to actions in the classroom, other pedagogical activities are carried out, such as seminars and interventions with market professionals, technical visits as mandatory curricular components, opportunities in which students exchange with public and private institutions expanding their perception of the social context and the professional market in which they are inserted. Besides, national and international missions are carried out, as optional activities, so that students can have contact with other cultures and demands differ from those to which they are accustomed. It seeks to promote varied learning experiences so that students can structure their knowledge,

create, and think critically, stimulating individual and collective potentialities. Thus, durable behavioral skills are combined with the specific technical skills of each area, concluding the journey with the application of knowledge through the creation of projects, products, and impact actions. The knowledge transfer pillar aims to stimulate students in the development of projects and impact products, being possible to choose several modalities for the development of the TCC¹⁶, that are classified by axes: 1) science (monographs and scientific articles that present research and innovations for real problems in society to publish in scientific journals as a way of sharing knowledge); 2) impact actions (actions carried out to transform realities); and 3) innovative projects and products that can be developed or applied by people or by public or private institutions to solve a real problem, always considering the connection with the Sustainable Development Goals¹⁷. João Mouzinho reflects on the opportunities created from the development of impact projects such as course completion work, such as participation in international events.: "When I found myself in front of Bill Clinton [at the Clinton Global Initiative Meeting in 2018, where he presented his project], I saw how strong education is from the perspective of changing people's lives. Given my financial reality, I wasn't supposed to be there. That's when I saw how much it was worth" 18

Over these 8 years of implementing the "Leaders who Transform" philosophy, dozens of ideas, actions and projects have already been created and as some examples can be mentioned: 1) the creation of the RIOS protocol, for the collection and reinfusion of autologous blood, presenting itself effective alternative to transfusion; 2) the accomplishment of a digital inclusion project for the elderly, through actions using virtual reality; 3) the execution of an accessibility project for the visually impaired in soccer games in Fortaleza / CE, which culminated in the creation of public policy with this objective. From this public policy, the state of Ceará became the first Brazilian state to carry out this measure of inclusion in the stadiums; 4) fashion and marketing consultancy for the creation of a clothing collection to collaborate with the sustainability of mothers of malnourished children, assisted by IPREDE. The project was entitled "Vai, Maria!"; 5) the participation of students from the fields of medicine, architecture, fashion and marketing in the production of the musical Rent (licensed by Broadway), which was on display during the month of August 2019. The students contributed to the effective assembly of the show (producing costumes and scenery), as well as discussions about how art impacts science and vice versa, based on the themes covered in the script, such as drug addiction, the HIV-AIDS epidemic, in the 1980s, and the inclusion of homeless people; 6) advising

 $^{^{14}} Quote taken from the upcoming report Leaders who Transform. \\$

 $^{{}^{15}}Quotetaken from the upcoming report Leaders who Transform. \\$

¹⁶In addition to the guidance of teachers linked to specific courses, there is dialogue with internal partners such as the Directorate for Research and Innovation and the Office of Management and Entrepreneurship, in addition to encouraging the submission of projects and products to calls for proposals for research and innovation, research initiatives. social entrepreneurship, challenges, contests and programs, such as the annual edition of the Clinton Global Initiative University (CGI U) and the SOLVE Program, from MIT, an opportunity in which selected students participate in international experience and meet with students and world leaders to learn to turn your ideas into

¹⁷Due to this pedagogical proposal, the Post-Unifor obtained, in 2019, the UN recognition as good practice for the achievement of the SDGs, with the possibility of being replicated by other institutions that wish to foster the potential for social transformation in their students, through quality education. Information on this recognition can be accessed on: https://sustainabledevelopment.un.org/partnership/?p=31002.

 $^{{\}rm ^{18}Quotetaken from the upcoming report Leaders who Transform.}$

students in the areas of photography, marketing and fashion for the creation and assembly of the Estrelário store, which brings together local brands, in a collaborative store, which allocates all profits to the EdiscaProject. Edisca is a dance school that aims to include vulnerable children and adolescents; 7) the creation of an online dispute resolution app and its implementation in county cases in the interior of the state of Ceará, aiming to resolve certain conflicts more efficient; 8) the planning and execution of actions for the digital inclusion of elderly interns in a nursing home in the city of Fortaleza. The project entitled "Throwback Technology" worked assembling the structure of a computer room and promotes periodic actions in the home; 9) the design of a pedagogical project for the implementation of legal education based on empathy; 10) the development of an app for prenatal care, aiming to reduce maternal mortality rates.

These students indicate that the support of the University was fundamental to not only motivate them to transform realities but above all to provide the necessary instruments for the implementation of projects that, previously, were words on paper²⁰. The reports shared by the students strengthen the perception that this educational model consolidates its purpose of being a vector of inclusion and transformation, with a focus on the positive impact for society. Student Paulo Freire, for example, internalized what he experienced at Post-Unifor by stating that the "real win-win is when you have your goals achieved and relationships transformed ". Thomaz Rocha, also student of Pós-Unifor, concludes that when "we are encouraged not to keep our knowledge only inside the academy, we are encouraged to make a difference in the lives of other people, and this is magnifying "21. The student João Mouzinho, who created the above mentioned "Throwback Technology" project, also shares his perception: "I was a technology student, who suddenly found myself there, advised by professors with masters and doctorates in the most diverse areas of knowledge.Me, talking and inter-relating to all of them, from Law, Health, from the administrative area. It is a trait of Unifor, this willingness to help students grow professionally through transversal knowledge. And it was because of this interaction and this team of teachers involved with the students' purposes that I developed a project that changed my life and of many people"22. It is understood that this curricular model has the potential to achieve an education that transcends technical qualification, including citizens more aware of their social role in the market and enabling a real transformation of the world.

Final Considerations

Education is a complex process that requires the recognition that people have multiple intelligences, different potentialities and need to be encouraged to develop and improve them. From

¹⁹For more information about the mentioned projects, you can access the links: https://gl.globo.com/ce/ceara/especial-publicitario/unifor/ensinando-e-aprendendo/noticia/2020/02/07/mestranda-da-universidade-de-fortaleza-representa-o-ceara-na-segunda-etapa-do-laboratorio-de-inovacao-em-enfermagem.ghtml;https://www.unifor.br/web/pos-graduacao/-/alunos-da-pos-

unifor-desenvolvem-projeto-de-reintegracao-social-de-idosos;https://gl.globo.com/ce/ceara/especial-publicitario/unifor/ensinando-eaprendendo/noticia/criancas-com-deficiencia-visual-acompanham-jogo-defutebol-na-arena-castelao.ghtml.

a collective perspective, education seeks to develop people into the world, preparing them to experience the challenges inherent in each career, from a professional technical point of view, as well as referring to the realization of the values of citizenship, democracy, and social justice. In this perspective, the Postgraduate Program at the University of Fortaleza, with the Leaders who Transform Program proposes an innovative, broad pedagogical project, in which it is possible to stimulate the experience of experiences by tuning the student with the challenges of society and the labor market, providing with the ability to innovate in today's reality, as well as allowing you to understand cultural, economic and social transformations. Finally, build a pedagogy centered on social practice, with repercussions in the most diverse daily spaces. Curriculum development assumes a constant assessment of subjects and learning objectives, as well as the teaching strategies (methodologies, activities, projects) used. The "Leaders who Transform" Program encourages the development of skills with a focus on the positive impact on society - developing professionals with technical excellence committed to social well-being.

The dozens of projects, products, ideas and actions developed by students over the eight years of implementation of this Program (which today is already considered the philosophy of Postgraduate Studies, even recognized by the United Nations as a good practice for consolidating the Objectives of the Sustainable Development - SDGs), students' testimonies and the impact they have on society demonstrate that this teaching model qualifies, strengthens, engages and impacts. It is shown, therefore, that the importance of education at the Postgraduate level in the current situation is not restricted only due to its value for current professional training as a continuous apprentice, but also for the development of citizens capable of acting in society for the transformation of realities, focusing on the positive impact on society, more aware of their potential to change their own lives and those of those around them.

REFERENCES

Accenture. 2013. Accenture Skills and Employment Trends Survey: Perspectives on the Perspectives on Training. Dublin: Accenture.

Balcar, J. 01 de 2014. Soft skills and their wage returns: overview of empirical literature. *Review of Economic Perspectives*, 141, pp. 3-15.

Burhan, M., Rehman, R. A., Khan, B., & Kim, B.-S. 2018. IoT Elements, Layered Architectures and Security Issues: A Comprehensive Survey. *Sensors*, 1-37.

Carnevale, A. 2013. 21st century competecies for college and career readiness. *Broken arow: National Career Development Association*, pp. 1-9.

Eger, H., & V. Grossmann. 2004. *Noncognitive abilities and within-group wage inequality*. Bonn: Institute for the Study of Labour.

Freire, P. 1979. *Pedagogia do Oprimido*. Rio de Janeiro: Paz e Terra.

Gasparini, C. 2016, october 31. As 10 competências mais raras entre profissionais brasileiros. Retrieved november 2016, from Revista Exame: https://exame.abril.com.br/carreira/as-10-competencias-mais-raras-entre-profissionais-brasileiros/

²⁰The full testimonies can be found on the following video: https://www.youtube.com/watch?v=I 4z5HMq5EE>

 $^{^{21}} Quote taken from the upcoming report Leaders who Transform. \\$

²²Universidade de Fortaleza. (2019). Congratulations, Mr. Mouzinho. *Jornal do Campus*, 26.

- Ghirardh, J. G. 2012. *O instante do encontro: questões fundamentais para o ensino jurídico*. São Paulo: Fundação Getúlio Vargas.
- International Labour Organization. 2008. Skills for improved productivity, employment growth and development. *International Labour Organization Conference* p. online. Geneva: International Labour Organization.
- Korn, M. 2014. Bosses Seek 'Critical Thinking,' but What Is That? *Wall Street Journal*, online.
- Lane, J. 2014. *Privacy, bid data and the public good:* frameworks for engagement. Cambridge: Cambridge University Press.
- Pissarides, C. 2019. Over half of the world's jobs are replaceable by a robot is yours? World Economic Forum.
- Rose, K., Eldridge, S., & Chapin, L. 2015. The internet of things: an overview. Understanding the issues and challenges of a more connected world. Internet Society. Geneva: Carolyn Marsan. Fonte: ISOC.

- Schwab, K. 2016. *A quarta revolução industrial*. São Paulo: Edipro.
- Universidade de Fortaleza. 2019. Congratulations, Mr. Mouzinho. *Jornal do Campus*, 26.
- Villas-Bôas, B. 2019. Máquinas podem ficar com metade dos empregos no Brasil Este trecho é parte de conteúdo que pode ser compartilhado utilizando o link https://valor.globo.com/carreira/noticia/2019/10/03/maquin as-podem-ficar-com-metade-dos-empregos-no-brasil.ghtml ou as f. *Valor Economico*.
- World Economic Forum. 2016, 01 31. The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution. Retrieved maio 2016, from World Economic Forum: http://www3. weforum.org/docs/ WEF Future of Jobs.pdf
