# Teaching Transversal Skills as an Agent of Change and Required Adaptations to New Market Demands

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*Abstract*—Education and training are fundamental foundations for the future of people and a country. The commitment to quality education for all requires an intervention that takes into account the challenges posed to education within the framework of today's society. Issues relating to sustainability, interculturality, equality, identity, participation in democratic life, innovation and creativity are indeed at the heart of the current debate. School, as an environment conducive to learning and skills development, where students acquire the multiple literacies they need to mobilize, a reconfiguration is required in order to meet the demands of these times of unpredictability and accelerated change.

In Portugal, the National Education Strategy integrates a set of rights and duties that must be present in the citizen formation of Portuguese children and young people, so that in the future they may be adults and adults with a civic conduct that privileges equality in interpersonal relationships, the integration of difference, respect for human rights and the valorization of concepts and values of democratic citizenship, the education system, the autonomy of schools and existing curriculum documents.

The present paper focus on the soft skill development in school context and reflects on the expected achievements

*Keywords*— sustainability, interculturality, equality, identity, participation in democratic life, innovation and creativity.

## I. INTRODUCTION

Promotion and Education for active life in the school environment is a continuous process that aims the development of skills of children and young people, allowing them to face themselves positively, build a life project and be able to make individual, conscious, and responsible choices. The promotion of education in school also has as mission to create environments that facilitate these choices and stimulate the critical spirit for the exercise of active citizenship. Soft skills play a key role in the development of healthy, sustainable, and happy citizens and societies with regard to sustainable growth and inclusive education and the United Nations 2030 Agenda for Sustainable Development. [1]

The school, as an organization committed to developing the acquisition of personal, cognitive, and socio-emotional skills is the space par excellence where, individually and in groups, youngsters learn to manage themselves effectively and act on factors that influence it. A Promoter school creates conditions for youth participation and encourages the collaboration of local partners. [2] In this way, it contributes to the goals, which explains the importance of different dimensions of education for sustainable development: Ensuring that all individuals acquire the knowledge and skills necessary to promote development, through sustainable development education and sustainable lifestyles, human rights, gender equality, promoting a culture of peace and non-violence, global citizenship and valuing cultural diversity and the contribution of culture to sustainable development, and others. [3] Defined as the cognitive and social skills that determine the motivation and ability of individuals to gain access, understand and use information in order to promote and maintain good health. As a cross-sectional and transdisciplinary theme, it presupposes: (i) a spiral interpretation with all its interconnected areas throughout the school journey; (ii) a conscious, creative, and intentional approach to intervention; (iii) a position of permanent negotiation by ethical processes centred on those who learn; (iv) a holistic view, because competencies must be developed across all curricular areas. In addition, it can also be supported by complementary curricular offers in basic education, or in projects and activities defined by schools with the objective of contributing to the personal and social training of students, in conjunction with the educational project of each school. [4-11]

In Europe, the advances are englobed in other projects and not well defined, such as the equality and human rights. For example, the European Union has been exposed to the Paris Declaration [12]. Regarding the Council of Europe, the Charter on Education for Democratic Citizenship and Human Rights [13] and the Skills for a Culture of Democracy living together in equality in culturally diverse democratic societies [14].

At an international level, UN/UNESCO, the Universal Declaration of Human Rights (December 10, 1948) has been the base for the Sustainable Development Goals, 2016-2030 [15] and the UNESCO Education for Global Citizenship: preparing learners for the challenges of the 21st century [16].

In Portugal, the school is organized by education levels and teaching cycles: pre-school education, 1st, 2nd and 3rd cycles of primary and secondary education. Conceived as a coherent whole, it is based on a structure common to the various levels and cycles of education and education, offering, for each of them, a specific approach proposal. The goals, at each of the levels and cycles of education, are those considered appropriate to the level of development and age group of the children and young people to which they are intended, and their use can be adapted to different specific school contexts. Depending on the options defined in the school health education project and the continuous work carried out with students, in each context, teachers will be able to select which contents to address, as well

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as the moments and methods to do so. For the same goal, inherent at all or at various levels and cycles of education and teaching, the descriptors acquire an increasing complexity, appropriate to the different age levels and skills already developed by students, considering that the subtheme can be further treated at the later levels.

Communication is an important pillar: It is impossible not to communicate. All human action has a communication value, and it obeys codes, is affected by aspects of various order, is marked by explicit and implicit intentions. It is based on empathy, that is, the ability to identify with the other person and consider their sensitivity, their suffering, as well as the responsibility of their acts. Understanding the mechanisms of communication is crucial for understanding and be understood, organizing a meaning in existence and coexistence. The goal is to communicate positively, effectively, and assertively, exploring verbal and non-verbal communication. It is important to identify and analyse communication styles: aggressive, assertive, manipulative, and passive. Adopting an assertive style of communication and exploring the concept of meta-communication is to identify incongruities in communication, develop negotiation and mediation, negotiate conflict situations, mediate conflict situations, be able to say yes and no, developing the ability to argue and be able to express your needs and desires. [17-25]

Another important pillar is autonomy. Autonomy presupposes a journey from the birth of each person to adulthood. Each stage of development addresses challenges that must be proposed to children and young people, encouraging them to achieve them. Autonomy derives both from the quality of the connection and from the separation capacity, in which, individuation corresponds to being interdependent with the other. It is synonymous with personal fulfilment, constructed identity, framework of values, of being able, of making decisions, of acting, of solving problems, of having a life project and of establishing connections with others in the sense of cooperation and help to achieve them. To demonstrate autonomy in each stage of growth and development is to recognize others as autonomous beings, to carry out autonomously the activities foreseen for their state of development, to identify the capacities, resources and limitations of others, and to respect them, being able to say yes, no, and argue, be able to express needs and desires, recognize that it needs others (group), value their abilities, know what the individual contribution in the construction of the collective. [26-31]

Also, interaction and relationship with others is fundamental: reflection of individual doubts, testing of competencies, source of satisfaction and frustration of expectations, engine of choices. The degree of sensitivity, respect, understanding, tolerance, satisfaction, with which the response of others who are significant to us is returned to us largely affects our self-concept and self-esteem. The younger one is, the greater the dependence on interaction with the other. Immaturity is inversely proportional to evolutionary complexity, that is, we have gone from an absolute dependence to a relative interdependence of life. This theme is closely linked to autonomy. To build positive relationships with others and with the environment is to know how to be in the community integrating social norms and rules, to value and protect the environment, to establish healthy relationships based on respect, cooperation and tolerance, prefer healthy relationships based on respect, cooperation and tolerance, differentiate private and public issues, respect private issues, assess respect for private and public issues, recognize authority in the family, school and community, identify authority in the family, at school and in the community, respect hierarchies and different social roles, analyse the importance of hierarchies and different social roles, explore the concept of sharing, know how to dialogue, value the creative and constructive side of humour, integrate the concepts of intimacy and sharing, identify the need for help and seek it, know how to deal with praise and criticism, distinguish between the constructive and destructive side of humour, know how to praise and criticize constructively, recognize the positive side and value overcoming adversities. [32-40]

Finally, resilience, presented as synonymous with positive adaptation and ability to maintain or recover mental health, implies the individual characteristics of each person and the various circumstances of the events of life. It is also defended as an individual predisposition to resist the negative consequences of risks and develop properly. It appeals to personal capacity for successful adaptation, positive functioning, or skills in the face of experience of adversity, involving multiple risks and internal and external threats, or recovery following a prolonged traumatic experience. Adopting resilient behaviours implies identifying qualities interests and positive experiences in itself, exploring the various options for problem solving, learning to make decisions, empowering to solve problems considering various options, knowing how to deal positively with difficulties, obstacles, or adversities, perceive the consequences of their acts, analyse the implications of each solution and the consequences of each decision, apply the ability to adapt to different situations. [41-51]

Portugal has made a set of commitments that are associated with key documents that provide a relevant framework for an understanding of the contemporary perspectives of Education:

• National Development Education Strategy, 2010-2015

• The existence of accumulated capital of experiences and projects of schools, a little throughout the country, namely in partnerships with NGOs, Municipalities, Higher Education Institutions (but with regional asymmetries and non-universality of citizenship education opportunities).

• The fact that the school must be attentive to the problems of society, preparing the new generations for a plural and democratic coexistence.

• Respect for the autonomy of schools in the definition of priorities and purposes to be included in their Educational Project, considering the diversity of socio-economic and geographical contexts.

• The existence of a collection of educational resources, tools, and research studies to support Education, but which lacks systematization and dissemination to schools in order to support the teaching work and the implementation of strategies at the level of each one.

• The valorisation of local specificities and realities to the detriment of abstract and decontextualized real-life approaches – the importance of local diagnosis.

• The realization that Citizenship is not simply learned by rhetorical processes, by transmissive teaching, but by experiential processes.

• Citizenship must be embedded in the school culture itself – based on a logic of participation and co-responsibility.

• The need to invest and integrate Citizenship Education in initial training and continuing teacher training

Considering that Education is a mission of the whole school, it is proposed that the implementation of the curriculum component follow a whole-school with the approach based on the following objectives:

• It results from practices based on time and not from mere one-off interventions.

• It is integrated in the curriculum, in the school and non-school activities, in the daily practices of school life and its articulation with the community.

• It is based on educational practices that promote inclusion.

• It is based on the continuous professional development of teachers.

• Involves students and students in active methodologies and offers opportunities for the development of personal and social skills.

• It is integrated into the policies and practices of the democratic school involving the entire school community.

• Promotes individual and collective well-being and health.

• Involves working in partnership with families and communities.

• It is aligned with the specificities of students and the priorities of the educational community.

• Relies on monitoring and evaluation in order to ensure effectiveness and participation.

The project description should identify the training needs based on the information provided by the schools and propose guidelines for the strategy of continuous training of teachers, identifying the priority training actions to be offered.

Regarding the profile of the Coordinator of the Education Strategy:

• Must have experience of team coordination and organizational capacity;

• Must attend/have attended training courses on Citizenship Education;

• Must have skills to use technological means and digital platforms;

• It should be able to establish and maintain empathic relationships with students, teachers, and non-teaching staff, sustained in listening and recognition processes;

• Must have an intercultural view of education (the recognition of cultures in attendance);

• You must feel motivated to perform the task without superior imposition;

• It should reveal experience in the development of projects at school level and capacity for collective organization.

Regarding the profile of the teacher of the discipline of Citizenship and Development:

• Must demonstrate knowing how to identify and have respect for the cultural differences of students and the other educational community;

• Should know how to create learning situations for students to develop critical thinking, collaborative work and problem solving;

• Should know how to enhance learning situations in conjunction with the community;

• Must have experience of team coordination and organizational capacity;

• Must attend/have attended training courses on Citizenship Education;

• Must have work skills, in particular, in project methodology;

• Must have skills to use technological means;

• Should be able to establish and maintain empathic relationships with students;

• Should feel motivated to perform tasks without higher imposition;

• Be recognized by the class council as the appropriate teacher to the coordination of the respective class.

It is important to reinforce the paradigm of partnership and articulation with stakeholders, in order to make it a systematic option that is integrated and fully reflected in the culture of schools and is realized in the negotiation and adoption of practices that incorporate horizontal relations. It is desirable that schools, for the development of their Education Strategy, establish partnerships with entities outside the school. By way of example, the following types of entities are identified and recommended:

• Higher education institutions and research centres and networks;

• Youth associations;

• NGO;

• Municipalities and their organs;

• Public services at local, regional, and national level;

• Groups of organized citizens, such as volunteer groups;

• Media;

• Public and private sector enterprises;

The articulation with local authorities and municipalities, through the Municipal Council of Education and its Municipal Educational Strategic Plan, appears as a practice to privilege schools by enhancing complementarity and convergence solutions capable of generating local and regional synergies that in a contextualized way contribute to the development of real experiences of participation and experience of citizenship.

**The Demands of the Labour Market in The Context of Transversal Skills**

The study of skills is not a new topic and has been evolving. [52], recognized at the time as the preeminent educational theorist of the 20th century, offers a concise reflection on education. Written over two decades after Democracy and Education [53], where he made a more comprehensive reflection of his orientation in educational philosophy. Analysing the "traditional" and "progressive" education of the time, the author argues that neither the old nor the new education is adequate, and each is uneducational because neither applies the principles of a carefully developed

philosophy of experience, having reformulated its own ideas. as a result of their experience of intervention with progressive schools and in light of the criticism received for their theories.

(Chillakuri & Mahanandia, 2018) aims to understand the characteristics of Generation Z and identify strategies to maximize their talent. [54] The study emphasizes that it is essential that companies update their strategies in order to receive this group, as with Generation Z entering the labour market, the nature of basic jobs is changing, and Human Resources need to redesign their strategies to attract and involve Generation Z. The research design adopted for the study is exploratory in nature, based on information / data collected in articles, journals, and conferences in the area of specialization and also on personal discussions with the Generation Z group. The article argues that Generation Z believes in multitasking and likes to learn on their own, emphasizing their individuality. They seek to do more in less time and therefore. [55]

In basic education, the biggest challenge is to know each child as he/she really is, to know what he/she is capable of doing and to centre education on the child's abilities, strengths, and interests". Therefore, the path of education is in the personalization of teaching. Personalized education considers that each child has their own way of learning, whether through reading, dynamic activities, or even artistic expressions. The best way to encourage the development of different types of intelligences in children is to allow them to freely express their desires and aptitudes. [56]

At other levels of education, personalization in the teaching process can be done using technology. With innovative educational tools, it is possible to indicate the best way for the student to learn, considering their individual skills and intelligence. Innovative and alternative schools can implement interdisciplinary curricula, with pedagogical proposals that use active learning methodologies and that place the student at the centre of the teaching process. For this, the role of the teacher within the classroom is modified. The educator assumes a role as an advisor and facilitator of the teaching process, helping the child to find and develop their skills. Encouraging the full development of the student must also be part of learning assessments.

(Garrido & Prada, 2016) presents a manual that systematizes a set of skills and strategies to support the transition to higher education and full integration in the academic context. Personal and interpersonal skills relevant in this context, such as personal organization and time management, communication, conflict resolution and ethical behaviour, are also addressed. Finally, essential skills for the elaboration and communication of university and scientific research works are described, such as critical thinking, planning and research methods, and writing techniques and scientific dissemination. [57]

Strategies and advice to start a professional career and to evolve are more thoughtful and structured, and can be set out in the following topics:

• Set medium/long term goals considering personal satisfaction, salary, professional area to work until retirement and understand what your expectations are as professionals.

• Betting on soft skills: The commitment to teamwork, emotional intelligence, communication skills and critical thinking are extremely important skills to grow as professionals, in any area of expertise.

• Networking: Feeding the personal relationships that are established along the individual journey and having good relationships can leverage a project, attract opportunities, and put a professional in the spotlight in the job market.

• Keep an open mind: Defining goals as a way to structure the stages of career development is important, but you must be flexible to take advantage of a good opportunity or when there are unforeseen circumstances.

• Asking for new responsibilities: going beyond what is asked (without putting into question hierarchies or pre-established jobs) and accepting new responsibilities.

• Diversifying knowledge: A university course, a postgraduate degree or a training in a different area forces you to cut out the mental routine, helps to diversify the knowledge portfolio and increases skills.

• Accept mistakes and grow with them: it is important to accept mistakes as something natural so that they become tools for learning and growth. Only those who don't risk don't fail.

At the present time when the mixed face-to-face/distance method is being implemented or considered, the labour market seeks to understand the specifics of Virtual Leadership (e-Leadership) and what are its specific skills. The use of the leadership style that should be adopted in a virtual team is certainly one of the most difficult assignments, whether on the part of an experienced manager, an entrepreneur who is trying to assert himself or a worker who has just been promoted to a leader. What any leader expects from his team is that he meets his expectations and always works to the best of his abilities. Thus, knowing how to extract what each person has best is the duty of any leader who wants to know how to manage a team, whether virtual or in person. Know how to manage conflicts, expectations, accepting opinions contrary to yours and mainly aligning people with different backgrounds with the same objective are challenges that arise in the synchronicity and asynchronicity of a virtual work team. In this context, betting on soft skills, teamwork, emotional intelligence, communication skills and critical thinking as a complement to the training area is to use precious tools in any area of expertise. On a personal and professional level, the added value of soft skills is evident when we are all entrepreneurs in our own lives, and we would all like to always achieve the best performance and the best possible result. As organizational structures evolve and globalization accelerates.

Some examples of soft skills are:
• Speak in public
• Emotional intelligence
• Manage time
• Learn to set goals
• Working under pressure and managing stress
• Learn to self-regulate emotions
• Improve the ability to defend a point of view
• Self confidence
• Flexibility and adaptability
• Create and be part of a culture of sharing and feedback
• Team collaboration and knowing how to work in a group
• team leadership
• Effective communication

- Results and Objectives Orientation
- Information Literacy
- Stronger deductive skills
- More coherent inductive skills

## II. CONCLUSIONS

The current educational model was designed according to the needs of the industrial revolution, being a mass-oriented, mechanistic model based on memorization and repetition. This model should change the teaching/learning paradigm, adjusting to the demands of the constantly changing global world, focusing on the acquisition of 21st century skills: not only acquiring basic cognitive skills, but also socio-emotional skills, the so-called soft skills.

The school can take advantage of easy access to information and encourage critical thinking to achieve better education through an app, with flexibility and allowing students to find their own passions.

As with other transversal skills, communication needs training: the course aims to provide the tools so that this training can result in improvements in communication. Paradoxically, practicing science communication for laypeople also improves communication skills for specialists: one learns the importance of defining the message well and how essential it is to put ourselves in the audience's shoes, two fundamental rules of any communication. The accelerated evolution of the Internet and the popularity of online tools is parallel to the increase of information (big data movement) in science.

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