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Capability approach and sustainability, a survey for the faculty development in Higher Education

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Abstract. Higher Education must cope with a complex intertwining of challenges that places university teachers in a condition of continuous updating. With this in mind, we intend to deepen the theme of Faculty Development (FD) with specific reference to the fascinating intertwining of the Capability Approach (CA) and the objectives of the 2030 agenda.

What connects the boost provided by studies on FD and the CA is the invitation for teachers to train active, responsible citizens capable of critical reasoning and problem-solving skills.

An investigation is being carried out for the in-depth study of the topics exposed at the University of Palermo. The research group envisaged the involvement of the students attending the Degree course in Pedagogical Sciences (289 students) - a.y. 2021/2022.

The research process activated sees both students and the research team as protagonists, as it allows to activate a reflective action on teaching practice to be able to constantly improve it and raise its quality. The survey aims at understanding how much future pedagogues know the 17 objectives promoted by the 2030 Agenda. According to what has been said, it is therefore a preliminary reflection step that precedes an experimental intervention, expected for the next academic year, that will be based on the implementation of activities workshops designed and implemented using the CA and which focus on the objectives of the 2030 Agenda. The tool used is the "Capability Approach and Sustainability" questionnaire created and built by the research group and the data analysis is quantitative.

Keywords: Capability Approach, Sustainability, 2030 Agenda; Faculty Development.

1 Theoretical framework

The horizon of meaning outlined by the capability approach defines a primary and preliminary social responsibility: outlining the characteristics of the context to define the possibilities of acting, imagining, promoting, predicting. Therefore, the CA expresses a competence to act, in all contexts of life, from school to professional, defining the objectives that every single person is preparing to achieve. It, therefore, be-

comes an essential right for the full flowering of the human being, for the expression of citizenship and democratic participation. Through the CA perspective, human capital incorporates another aspect: the dimension of lifelong learning and learning by doing, stimulating learning in formal and non-formal contexts, and aiming at the acquisition of cognitive opportunities and the development of capabilities.

As a matter of fact, Nussbaum's capabilities approach is a constant reassessment of the answer to the question: what does the prosperity of a nation or region of the world and the quality of life of its inhabitants consist of? [1].

The CA also meets the issue of sustainability in the educational-teaching field, directing the focus of research on the teacher and on the teaching design that is implemented daily in professional practice.

The 2030 Agenda for Sustainable Development in this sense is a crucial document; it carries out an action program for people, the planet, and prosperity. The 2030 Agenda incorporates 17 Sustainable Development Goals, SDGs - into a large action program that reveals a total of 169 targets or milestones.

The sustainability philosophy encompasses three interrelated dimensions [2]: human development, social justice, care for the environment. The paradigm of sustainability and the perspective of the CA find a point of possible convergence for pedagogical reflection also around the theme of the community [3]. The purpose of global development, like that of any good national development policy, consists of promoting the growth of the capabilities of everyone [4].

In this perspective, it is the 2030 Agenda itself that identifies community cohesion as one of the key elements for building an enabling environment for the full realization of rights and the putting into practice of the abilities of children and young people [5].

The agency represents the effective opportunity of the subject to exercise his freedom in terms of skills, or ways of acting, doing and being that guarantee his full development as a human being, respect for dignity and the promotion of individual well-being and collective [3].

1.1 Capability Approach and sustainability

The Capability Approach (CA) allows us to operate pursuant of an existential conception of holistic well-being, with a view to development intended as promotion and realization of individual and collective well-being [6] [7] [8].

The CA perspective, although it was born in economic field, lends itself to a pedagogical dimension, for an identity construction related to sustainable development and to person concrete becoming.

As U-Haq [9] claimed, the CA embodies the possibility of "Human Development" understood as development "for", "through" and "of" people. In this perspective, the possibility development to act, to participate, and to reach the state of empowerment is fundamental, as essential rights for the full growth of the human being, for the expression of citizenship and democratic participation.

According to Sen [8], an agent is who determines changing; it follows that agency coincides with what is acquired in terms of values and objectives connected with one's

own and others' well-being. For this reason, the concept of agency translates into a value with a double value: personal and community [10].

Agency is determined by both personal and social assets and abilities and both human and material resources [11].

Martha Nussbaum [12] resumes the concept of capability proposed by Sen, articulating the construct in three dimensions: innate skills, internal skills, and combined skills. Furthermore, these have been declined by scholar into ten skills that reflect the minimum threshold that a government has to strive to achieve for all citizens. "Since the task of the government is known and widely shared (that is, to make people able to live a dignified and sufficiently flourishing existence), it results that a good political order has to guarantee all citizens at least the following threshold of ten central capacities» [12]: life, physical health, physical integrity, senses, feelings, practical reason, belonging, other species, play, control of one's environment.

This multi-perspective view of skills was taken from UN as part of the Human Development Report of 2010 for which they are considered fundamental for global economic growth.

The approach crux is that each human being could fully live according to their own abilities, carrying out, on contrary to human capital policies, an unprecedented moral imperative [12]. Only in this way we can speak not only of welfare but rather of well-being, which is the well-being condition in social life multidimensionality [13].

As Alessandrini highlighted [2], "the theme of human development - in particular the approach to skills (Nussbaum / Sen) - is a fundamental point of reference to rethink educational practices from a generative reference to new educational values Centred on inequalities contrast.

Therefore, it is necessary to question how pedagogical research can "intercept" these challenges to propose a culture of sustainability [5] starting from schools, forming the new generations, by learning processes of an eminently transformative and generative nature [14; 15].

1.2 Capability Approach and Agenda 2030

The Agenda 2030 for Sustainable Development is an action program for people, planet and prosperity action, signed in September 2015 by the governments of the 193 UN member countries. It incorporates 17 Sustainable Development Goals - SDGs - in a large action program for a total of 169 'targets' [5].

The official Sustainable Development Goals launch coincided with the beginning of 2016, providing a time frame of 15 years. The Development Goals respond to previous Millennium Development Goals outcomes, and represent common goals on a set of important development issues: the fight against poverty, the eradication of hunger and the fight against climate change, to name but a few, etc.

"Common goals" means that they concern all countries and all individuals: no one is excluded, and no one should be left behind on the path towards sustainability.

Capability education is seen as a space of freedom and citizenship education and as an education in individual and collective responsibility.

Alessandrini [16] has long reflected on the relationship between CA and sustainability, developing a clear overview of common elements. Among them:

- the awareness that economic development is not identified with human development;
- the vision of contrasting the diffusion of a market-based and functionalist approach to development;
- the primacy of attention to "common good";
- the refusal of an individualistic and private vision of knowledge;
- primary attention to the need to safeguard the dignity of everyone.

The agency represents the subject effective opportunity to exercise his freedom in terms of skills, i.e., ways of acting, doing and being that guarantee his full development as a human being, respect for dignity and promotion of individual and collective well-being [17].

This would allow us to imagine an educating community in which all the resources found within it, from human to economic and social ones, act in a synergistic and cooperative way to create capacitive contexts [18].

In this perspective, the 2030 Agenda identifies community cohesion as one of the key elements for building an enabling environment for rights full realization and to putting into practice the abilities of children and young people [5]; not for nothing the reference to the term community is quite frequent in the declination of the 17 objectives and 169 targets for the implementation of sustainable development.

Pedagogy for sustainable development, therefore, cannot stop at initiatives limited to schools, but is called upon to contribute to promoting awareness of the interdependence between the natural environment and human action in a lifelong perspective, and life-deep learning declined in reality of processes, behaviours and actions that manage to express and realize the capabilities of each one to the fullest extent possible, in an essential ethical dimension based on equity, inclusion, well-being intended as quality of life and surrounding environment, planetary and interplanetary [19].

To respond to the educational challenges nowadays posed to education world, it should be paid attention to people and their potential, working on engagement, responsibility, leadership and inclusion of all internal and external actors in educational contexts. [20]; [21]; [22]; [23].

The complexity given of the phenomena object of interest, needs to work at several levels on the promotion of sustainable education [2]. As Giuliani and Moretti claimed [23], in fact, it is not enough to look only at students, but it is also necessary to work on teachers, schools, universities and training bodies, up to the policy makers.

1.3 Faculty development

The expression "Faculty Development" (FD) does not have a unique definition. There is no doubt that this construct has developed in the English-speaking world (the United States and Canada at the beginning) since 1970s. Over time, however, someone understood it in its widest sense as a range of activities designed to support faculty performance in all aspects of professional life such as teachers, scholars, consult-

ants, academic and institutional leaders, citizens [24]. Other scholars, furthermore, have focused on the development and renewal of teaching, meaning by expression FD a series of activities aimed to students' learning improvement and to help teachers improve their skills as learners [25]. More recently, we talk about FD to indicate the opportunity for professional development for individual teachers, departments, colleges, and institutions [26].

Due to this different evolution by the time, we can say that the expression FD could indicate various actions aimed at [27]:

- promotion of reflective practices related to different roles of the university teacher;
- promotion of specific teaching skills of university teachers;
- promotion of curricula reorganization according to the skills paradigm;
- promoting the creation of communities of practice relating to university learning and teaching;
- promotion of forms of exchange and dialogue than that these issues through the creation of communities of an interinstitutional nature (also at the international level).

According to Steinert [28] [29], moreover, it is possible to arrange the actions of the FD on two axes: on the first one it is possible to arrange those actions that involve individual or group learning forms; in the second one it is possible to discuss formal or informal learning actions. The intersection of these two axes emerges a classification which provides for formal activities based on individual learning (such as: online learning, peer training, feedback from students); o formal activities based on group learning (such as: workshops and seminars, fellowships, longitudinal training programs). In addition, informal activities based on individual learning (reflective activities, learning from observation, learning by doing); o informal activities based on group learning (work-based learning, community of practice).

"Whatever delivery modalities are of the Faculty Development programs and modalities through which the change is produced, it is possible to observe how these actions lead to a positive change relative not only to the actions but - at a deeper level - to the attitudes and beliefs that guide the choices of teachers with regard to the educational principles they bear "[27].

2 Research section

The research activity involved the design of an investigation tool that would be aimed to understand how much future pedagogues know the 17 objectives promoted by the 2030 Agenda.

Specifically, the construction of the tool consists in a survey formulation and take place from a long reflection on the topics exposed, on the ISTAT data relating to goals 4 and 13 of the 2030 Agenda [5].

The questionnaire inquires future pedagogues who are beginners about the achievement of the goals and the consequent connection with the size of the CA.

The research action is divided in two part: the first one is oriented to training the students of the Degree Course in Pedagogical Sciences attending the following sub-

jects: Methodology of Research in the Education(189 students) and Docimology laboratory (200 students) - a.y. 2021/2022; then, the second part is an Experimental intervention, expected for the next academic year, that will be based on the implementation of activities workshops designed and implemented using the CA and focusing us on the objectives of the 2030 Agenda.

2.1 The recipients

The students of the Degree Course in Pedagogical Sciences attending the Methodology of Research in the Education (189 students) and Docimology laboratory (200 students) during the a.v. 2021/2022 were the recipients of the research action. The sample was analysed to understand the mean categories of which it is made up.

Based on the age (see Fig. 1), the sample is mostly composed by people who are between 21-25 years old, while the 20 percent of the sample is almost equally divided between 26 and 46 years old.

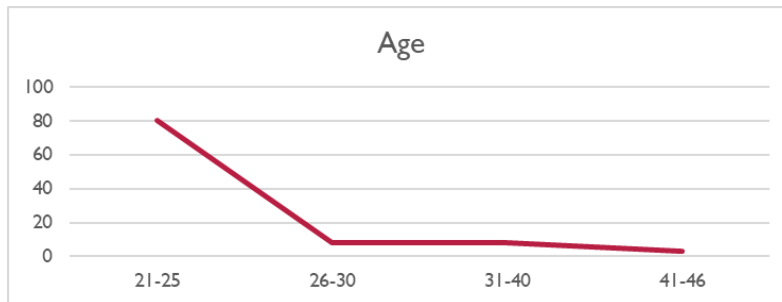


Fig. 1. Age of participants

The sample have been selected form university classroom, so it is mostly composed by students, nevertheless the 20 percent of the sample is employed (see Fig. 2).

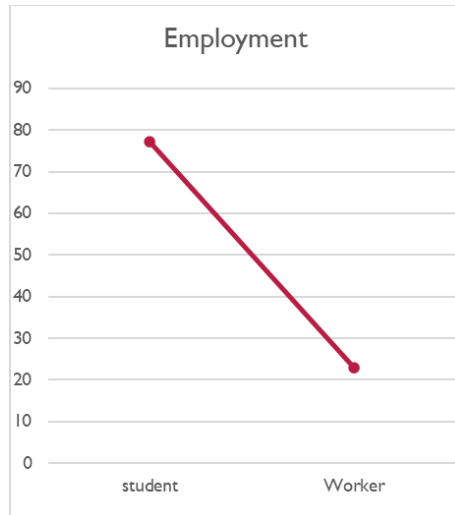


Fig. 2. Employment situation of participants

The sample is quite heterogeneous on the level of education point of view. Almost half of the sample are students attending the early childhood education course, 40 percent is equally divided in students attending socio-pedagogical education and community education. The last 10 percent are students that already get another bachelor or master's degree.

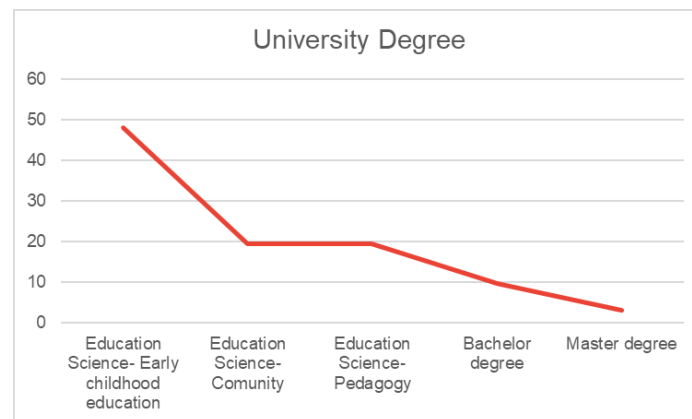


Fig. 3. Qualification of the participants

2.2 The tool

The tool prepared for experimental action is a questionnaire created by Google Forms platform, it is made of three sections.

The first section consists of a personal data part, which requires generic personal information, while the second section is based on knowledge of the following data:

- 2030 Agenda drawn up by the UN;
- Global Goals Kids Show created by the Italian Alliance for Sustainable Development (ASVIS: Alleanza Italiana per lo Sviluppo Sostenibile);
- National Indications and New Scenarios drawn up by the Ministry of Education;
- Report "Education in a post-COVID world: nine ideas for public action" prepared by the International Commission on the Futures of Education established by UNESCO.

The third section of the tool is centered on goal 4 of the 2030 Agenda, "Providing quality, equitable and inclusive education, and learning opportunities for all".

The section consists of fifteen items, the indicator is a frequency scale from one to five. Each item asks the student about his or her work within the class aimed to achieve the aforementioned goal.

2.3 Data analysis

As the graph shows, the total answers obtained was 1081 (higher than sample people, 389), since each student had the opportunity to insert one or more objectives of the Agenda, for this reason calculations were scaled on the total obtained (See Fig. 4). The best-known objectives by the reference sample are No. 4 (Quality Education), No 5 (Gender Equality) and No 10 (Reducing Inequalities), which are above 10%. Then goal 3 (Health and well-being), no. 13 (Combating climate change), no. 15 (Life on Earth) and no. 6 (Clean water and sanitation) have been selected, although for fewer students, as they are less present in their answers.

Finally, there are some of the objectives rarely selected by the sample, due to their not malleability to integration into everyday teaching. They are no. 17 (Partnership of objectives), no. 8 (Decent work and economic growth), no. 1 (Eradicating poverty) and no. 9 (Enterprise, innovation, and infrastructure).

The most contrasting data are related to only 1.76% of students who don't know the 17 objectives of the 2030 Agenda (Point 18). This leads to a reflection on the goals used in current educational paths.

It would be desirable to invite teachers to raise awareness in students on a wide range of issues, integrating them in interdisciplinary paths or in civic education ones, providing a range of choices on which to direct the ethical and moral growth of each.

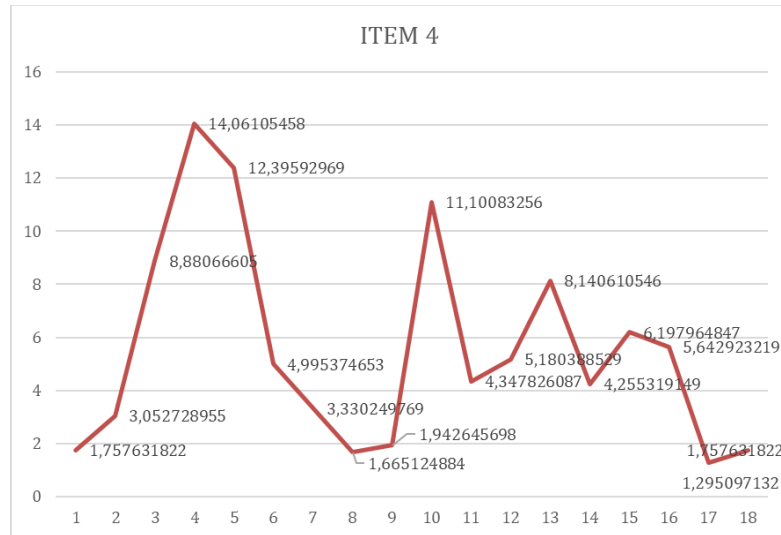


Fig. 4. Item 4: students' knowledge of the agenda 2030

In the third section of the inquire, which is related to the field of quality education, it is consequential to conduct reflection on a fair and inclusive education, which allows every pupil, even those who are in a situation of socio-economic and cultural disadvantage, to aspire to the maximum (See Fig. 5).

This dimension includes access to teaching materials, which, to guarantee the right to study, must be accessible to all, while respecting equal skills and opportunities.

This item helps to draw a positive and encouraging picture, as it defines how, in the absence of materials, schools will succeed to provide them to pupils; despite 35.94% of respondents placed the response values between 1 and 3, It shows that there are schools in which materials are completely missing or are provided occasionally.

As results schools, especially in difficult contexts and/or neighbourhoods, probably need more help and support from the state, by supplies for pupils, to increase the degree of involvement of students.

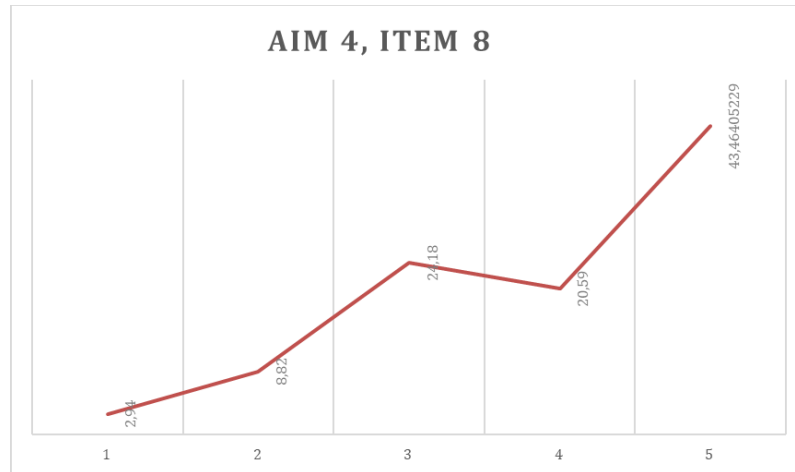


Fig. 5. Item 8 of the Objective 4 section: "The school supports the individual pupils' educational path by providing the school material if, for various reasons, it is not available, so as to provide the fairest and most inclusive education".

The last item of the section has been written through the creation of inferences between the CA and the paradigm of sustainability, significant in the above mentioned section of the instrument. Item 15: "Teachers aware of being an autonomous community of elaboration of reality, will give their pupils the opportunity to develop, through their imagination, ever new interpretations of the world and to offer solutions for positive change" (see fig. 6).

The data show that most of the teachers of the interviewed students offer an experience close to the realization of their potential, making them develop innovative skills, which will be substantial for changing of the future.

The analysis of these factors defines a dimension towards which the school is heading, i.e. a new way of dealing with current problems, especially with regard to the awareness of pupils on mutual respect and on respect of environment in which they live.

The nowadays teacher, destined to become the one of tomorrow, is aware of its pupils' abilities and knows how to push on strengths and especially on weakness, devising innovative solutions in view of their future, for a greater involvement of the personal sphere of each one.

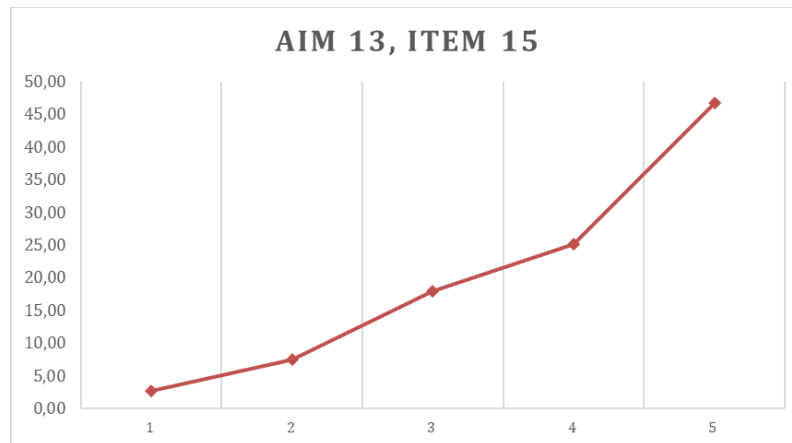


Fig. 6. Item 15 of the Objective 13 section: "Teachers aware of being an autonomous community of elaboration of the real, will give the opportunity to their students to develop, through imagination, new interpretations of the world and to offer solutions for positive change".

3 Conclusion

The intention to relate the two paradigms aims to an integral development of the student. In this way it is possible to enhance personal specificities to become a social capital.

Looking at the future, it is essential to educate the new generations to respect the planet and others, stimulating the creation of a society based on individual well-being that systematically becomes collective.

School has all the potential to bring the professionals of tomorrow to be professionals of life. The change must start from the bottom and by the work of each teacher, it can reach the highest grades, to lead to a total change of the school, creating a real educating community without distances or differences.

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