



ISSN: 2038-3282

**Pubblicato il: aprile 2021**

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Registrazione Tribunale di Frosinone N. 564/09 VG

## **Study of pro-environmental behavior in University students for the development of an educational intervention**

### **Indagine sul comportamento pro-ambientale negli studenti Universitari per lo sviluppo di un intervento educativo**

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#### **Abstract**

In recent years, concern about the reckless exploitation of natural resources and the violation of environmental resources has been increasingly growing, fuelling global political and economic debate. It is evident that the current scenario is the result of centuries of ill-considered human decisions and actions that call into question the balance of the ecosystem. More environmental awareness needs to be developed, starting from schools. The research project is oriented towards the training of educators and teachers on this issue. The study presented here shows the results of the preliminary survey carried out on a panel of university students enrolled in Education Sciences to identify their level of pro-environmental sensitivity and behaviour and proposes the thematic areas of the training course to be developed. It will have an innovative connotation, combining the potential of digital technologies with an embodied learning approach.

**Keywords:** environmental education, embodied learning, digital ecology, sustainability, pro-

environmental attitude

### **Abstract**

Negli ultimi anni si fa sempre più forte la preoccupazione per lo sfruttamento sconsiderato delle risorse naturali e la violazione delle risorse ambientali, alimentando il dibattito politico ed economico mondiale. E' evidente come lo scenario attuale sia il risultato di secoli di decisioni e azioni sconsiderate dell'uomo che mettono in discussione gli equilibri dell'ecosistema. E' necessario sviluppare una maggior consapevolezza ambientale, iniziando dalla scuola. Il progetto di ricerca si orienta alla formazione degli educatori e insegnanti rispetto a questo tema. Lo studio qui presentato mostra i risultati emersi dall'indagine conoscitiva preliminare effettuata su un panel di studenti universitari iscritti a Scienze della Formazione per individuare il loro livello di sensibilità e comportamento pro-ambientale e propone le aree tematiche del percorso formativo da sviluppare. Tale percorso avrà una connotazione innovativa, coniugando le potenzialità delle tecnologie digitali con l'approccio all'apprendimento incarnato.

**Parole chiave:** educazione ambientale, apprendimento incarnato, ecologia digitale, sostenibilità, attitudine pro-ambientale

### **1. Introduction<sup>1</sup>**

Over the last few decades, environmental challenges have been increasingly growing and weighing more heavily in terms of threatening the wellbeing of the planet as a whole, taking into account all living beings, both human and animal, and plants. Climate change has been defined by the European Council as 'an existential threat', it is a priority to energetically define important actions and, above all, to spread a culture that sees care for the environment as a constitutive element. In terms of communication, the risk that the world is running is clear and known to a large part of the world's population, however, all this is not being transformed into incisive and definitive decisions and behaviour by institutions and citizens. The EU is committed to achieving zero greenhouse gas emissions by 2050, to creating economic growth decoupled from resource use, and to neglecting no place and no person. An intermediate step is to reduce emissions by 55% compared to 1990 by 2030. In 2019, the EU publishes the Green Deal, a programme of targets and actions to achieve a sustainable EU economy, in particular to promote resource efficiency by moving to a clean circular economy, restore biodiversity and reduce pollution. Within this scenario, Italy is on the move towards achieving the target, but with varying degrees of slowness. The third edition of the SDGs 2020 Report (Istat, 2020) shows that, looking at the overall trend, compared to the previous 10 years, the picture for Goals 2030 shows many positive signals. The composite indicator "Environmental Sustainability" (Goal 2 - Zero Hunger; 6 - Clean Water and Sanitation; 7 - Clean and Affordable Energy; 12 - Responsible Consumption and Production; 13 - Acting for the Climate; 14 - Life Under Water and 15 - Life on Earth) shows a general trend of improvement over the last 10 years. However, we are still a long way from achieving the challenging targets that European and world countries have set. Moreover, in February 2021 the Italian government established the Ministry of Ecological Transition, appointing Prof. Roberto Cingolani as Minister. This ministry succeeds the Ministry of the Environment and Protection of

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<sup>1</sup> The manuscript is the result of a collective work of the authors, whose specific contribution is to be referred to as follows: Luigi Piceci paragraphs 1, 4, 6, 7, 8.; Anna Maria Mariani paragraphs 2, 3, 5, 6, 7, 8.

Land and Sea and has also been assigned the functions regarding energy, which were previously in the hands of the Ministry of Economic Development, and its task is to supervise ISPRA (Istituto Superiore per la Protezione e la Ricerca Ambientale). It is evident that the current scenario is the result of centuries of ill-considered human decisions and actions that call into question the balance of the ecosystem. In addition to the decisions and actions taken by the government, it is necessary to develop greater environmental awareness at an individual level. Education is considered one of the fundamental tools in the pursuit of sustainable development and is essential to acquire knowledge, values, attitudes and practical skills to participate responsibly and effectively in environmental issues (UNESCO-UNEP, 1978). The school institution is one of the agents of cultural transformation that, by educating children and young people towards a specific sensitivity to environmental issues, can support a virtuous circle in which today's young people will be tomorrow's adults and parents, able to transmit environmental culture and values to their children. With the Guidelines for the teaching of Civic Education, adopted in application of Law no. 92 of 20 August 2019, the Ministry of Education confirms the inclusion of the thematic core "Sustainable Development, Environmental Education, Knowledge and Protection of Heritage and Territory" within the discipline of Civic Education, which must include a transversal value matrix to be combined with the individual disciplines. All teachers are therefore called upon to collaborate in order to include the values and themes of sustainable development in their subjects and encourage pro-environmental behaviour in their pupils. A Eurispes survey (2020) clearly shows that pro-environmental attitudes are more evident among the younger age group (41%) compared to 35% among the over 45s, while the survey "L'atteggiamento Green degli italiani" (The Green Attitude of Italians) by Eumetra MR (2019) highlights a significant gap between the level of declared attention to the issue of environmental sustainability and the behaviour actually adopted by individuals and families. In this cultural change, we therefore believe that a fundamental role is played by educators and teachers, who are responsible for transmitting the values of sustainability also through their behaviour. Our contribution shows the results of a preliminary survey on a panel of university students enrolled in Education Sciences to identify their level of pro-environmental sensitivity and behaviour. The results obtained from the survey will be the basis for the structuring and implementation of a training course to be delivered in the academic environment, in order to develop and reinforce the pro-environmental behaviour of future teachers and educators.

## **2. Pro-environmental behaviour and the role of school education**

Pro-environmental behaviour (PEB) is a complex concept where several factors converge and can be influenced by different causes (Stern, 2000). PEB can be defined as "the actor's standpoint and covers all behaviours undertaken by a single individual to reduce one's negative environmental impact with a clear intention to change the environment" (Blankenberg et al., 2019), also taking into consideration the studies carried out by Stern (2000) and Kollmuss & Agyeman (2002) on the topic. As Fabi et al. (2017) state, "*although the man has changed the environment in which he lives, this does not necessarily mean that his actions were and are facing a conscious and intentional of ecosystem destruction, but rather to a research of comfort, safety and fun*" (p. 462). According to Campbell's theory (1963), pro-environmental behaviour is influenced by personal attitude but also by the difficulty of engaging in that behaviour. The difficulty arises both from the personal effort required to perform the behaviour and from the obstacles the person has to

overcome in order to do so. This implies that pro-environmental behaviours are not uniform under the same external stimuli (Steg et al., 2013; Fabi et al., 2017). According to Stern (2000), the factors that affect pro-environmental behaviour can be divided into three types: 1) contextual factors, regarding social aspects (peer group can positively affect behaviour), individual aspects (psychophysical well-being, connection to nature, ties to specific places) and institutional aspects (policies and organisation of the territory) (Blankenberg et al., 2019). Moreover, several studies have shown that PEB has a circular pattern and follows the stages of life. The moment of becoming a parent would seem to be the one in which the level of PEB is lower, due to the limitations one faces with the birth of a child (Longhi, 2013), while in the age groups under 30 and between 60 and 69, there would seem to be more behaviour oriented towards environmental protection, especially from 2010 onwards (Otto and Kaiser, 2014). Moreover, with regard to the level of education, in the literature review by Blankenberg et al. (2019), it is well illustrated how higher levels of education are correlated with greater pro-environmental behaviour. In particular, higher education seems to have a positive influence on certain types of behaviour, such as consumption of recycled paper, consumption of unpackaged products, limiting consumption of tap water. According to Frazen and Mayer (2010), increasing knowledge about environmental issues through education increases concern about global warming, although, according to Chankrajang and Muttarak (2017), treating this issue endogenously does not impact on feelings of concern. In general, Halkos and Matsiori (2017) state that personal ecological views may vary from one individual to another depending on knowledge and socio-economic determinants. While it is true that knowledge is not enough to stimulate pro-environmental behaviour, according to Jensen (2002) this is due to the fact that the didactics taught in schools are not action-oriented and they focus mainly on the transmission of content without allowing students to internalise this knowledge. Lessons are mainly oriented towards a scientific perspective on the situation and effects but no space is given to causal and solution aspects. Blankenberg et al. (2019) suggest an action-oriented approach in lectures and lessons. “A participatory and action-oriented form of environmental education does not rule out basic knowledge and insight: on the contrary, it requires the development of a new ‘landscape’ of extensive and coherent knowledge and insight” (p. 332).

### **3. Embodied education and pro-environmental behaviour**

Learning is often conceptualised as a disembodied and purely cognitive process, where the body is a mere spectator and performer of what is learned, thus simply a place to house the brain and the mind, reinforcing the widely held view of a clear division between mind and body (Barnacle, 2009). As a matter of fact, both dimensions play a fundamental role in the development of the person and in learning processes. As a matter of fact, on the one hand, there are the internal processes of evolution and development, and on the other, there is the possibility of constructing meanings during the relationship with the context and the elements that constitute the way of thinking and acting that it conveys (Lo Presti, 2005). Reality is interactively co-constructed through a body that experiences the environment, made up of objects and other bodies. The relationships that the individual realises through the body, within its social and cultural context, are internalised and construct models of reality. Individual and collective reality is constructed through the exchange of signals, emotions, behaviours and expressions (Lo Presti, 2016). In the learning person, mental processes are activated due to the various circuits between neurons that, through the body of which they are part, carry out educational and learning experiences (Peluso

Cassese et al., 2017). The idea of embodied learning places the student at the centre of the learning process by giving the opportunity for physical interaction with the learning material (Ayala et al., 2013; Chandler & Tricot, 2015) and providing hands-on activities in or out of the classroom. If through exploration with one's body and senses cognitive structures are created (Neisser, 1976) and if and self-image is built through exploration of the body in the external physical and social environment, then it is evident that education for sustainable development that does not create these prerequisites loses effectiveness in relation to creating a culture in which environmental values become part of the person him/herself. Bonnett (2003) states that if people physically interact with the world and nature around them, they begin to feel nature as a sense rather than a cognitive activity. *“Only if men [sic] can first learn to look sensually at the world will they come to care for it. Not only look at it, but to touch it, smell it, taste it”* (Passmore, 1980, p. 189). Educational projects aimed at developing pro-environmental behaviour should consider an embodied approach to teaching, developing experiences that can incorporate the natural world into the self-image, so that one sees one's pro-environmental actions as acting for oneself and for others. As said by Malavasi (2010), education cannot be separated from the governance of the processes that can lead to the protection of the planet. Outdoor education, education in the woods, can be examples of education that involves the body in learning. Outdoor educational activities are designed to confront students with particular situations, with problems to be solved, solutions to be found through their own direct action. The aim is the total involvement of the person to create learning that is experienced before it is conceptualised. Through reflection on results and behaviour, the educational objectives of a responsible and involved attitude towards the environment, considered as something 'in itself' and not 'outside itself', can be achieved.

#### **4. The potential of technologies to foster a pro-environment culture**

It is an undeniable fact that technology affects people's daily lives. Since the 1980s, technology has become more and more important and has become an integral part of our daily lives.

The use of technology dates back to ancient times and the need for human beings to be able to speed up certain repetitive tasks (Piceci ,2020). Like any phenomenon, there are side effects and there are undesired secondary products such as pollution and industrial waste, but it is also clear that technology can be used to support environmentally friendly behaviour and to promote sustainable living.

The first accelerator is certainly the web, where information on these issues is constantly increasing. Environmental information is defined as "any information available in written, visual, audio or database form on the state of water, soil, fauna, flora, land and natural spaces, on activities, including harmful ones, or measures affecting or likely to affect these environmental components, and on administrative activities and measures and programmes for the management of the environment"<sup>2</sup>. In Italy, the number of portals dealing with topics related to the environment is increasing, environmental information on the websites of APAT and ARPA/APPA is constant over time with an increase in bulletins, databases and services in general (source: ISPRA 2019). Although much of it is institutional communication, it still feeds what could be seen as a collective peer-to-peer cooperation that takes place online and is part of the motivational systems inherent in human beings. Liotti (2017) argues that "the peer cooperative system is activated by the perception of goals that appear to interacting individuals as better pursuable through joint action", thus the web

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<sup>2</sup> D.Lgs. 24 febbraio 1997 n. 39 che recepisce la direttiva 90/137CEE concernente la libertà di accesso alle informazioni in materia di ambiente



with in particular social media are part of the technology supporting the diffusion of pro-environmental behaviour, as this technology has in itself the nature of collaboration with the union of intentions (Cicerone, 2017). The typical characteristics of social networks such as being part of a community seen as an aggregation of people who share interests, being able to communicate in a multilateral way and being able to get in touch with up-to-date information (Piceci, 2020) represents a success factor of this media. The interest of individuals in environmental phenomena and the concept of conservation is constantly increasing and transforms the 'network' into a vehicle for spreading awareness, exploiting its 'social' potential not only through the 'classic' generalist channels, such as Facebook, LinkedIn and Instagram, but also with the creation of purely environmental social networks. The same phenomenon applies to APPs (i.e. applications for smart phones), which are constantly on the increase in this field and which make it possible to monitor and report abnormal or dangerous situations. In particular, this type of technology makes it possible to offer communication systems that can be tailored to the type of user (e.g. age, geographical location, language, etc.). An example is maydayEarth<sup>3</sup> an APP that integrates geolocalised reporting of an environmental emergency, or that makes it possible to create campaigns aimed at a specific intervention in a given place, involving those who promote it, thus also working on responsibility. It is considered interesting for the purposes of this paper to introduce the concept of 'persuasive technology' and also the term 'captology'. The former is used to refer to systems and environments designed specifically to modify human cognitive processes, attitudes and behaviour (Fogg 2003), the latter coined by Brian Feffrey Fogg in 1966, derives from "Computers As Persuasive Technologies" (Fogg, 2003).

In order to reduce environmental impact, environmental policies often encourage scientific research into technology. However, it must be pointed out that behaviour, the propensity to adopt a pro-environmental attitude and technology are closely linked, since any type of technological innovation must be accepted by the user in order to manifest its effects, so that it does not become an accelerator of the digital divide. Another important aspect is that the use of technology is not necessarily linked to a lower environmental impact. Generally speaking, all electronic devices and ICT infrastructures are energy-intensive with respect to consumption, use rare raw materials with high extraction costs in ecological terms and generate large quantities of waste that must be disposed of. From a purely energy point of view, it is estimated that by 2040 they will contribute 14% to global CO<sub>2</sub> emissions (compared to a 20% contribution from the transport sector, which is broadly stable over time). Increasing their impact are smartphones in particular, given their growth rate and speed of replacement (Belkhir & Elmeligi, 2018). Behaviour therefore influences the acceptance and impacts of technology, and technology could influence human behaviour (Midden & Ham, 2018).

Modern network-based communication systems play an important role in the dissemination of persuasive messages. Their characteristics enable them to become real agents of dissemination and persuasion with specific advantages over human persuaders (Fogg 2003) as they can be more persistent also by virtue of their nature that allows the guarantee of anonymity, a factor that becomes highly relevant in the case of issues to which the public has a particular sensitivity. Technology makes it possible to easily retrieve the necessary information in an adequate time,

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<sup>3</sup> <https://maydayearth.org> "La piattaforma web maydayearth.org è un programma di innovazione sociale promosso, gestito e coordinato dalla startup innovativa SHARE-K s.r.l. che opera anche con il portale di sharing [www.toolssharing.com](http://www.toolssharing.com) ed ha il riconoscimento di Rappresentanti di Interessi presso la Camera dei Deputati della Repubblica Italiana <https://maydayearth.org/chi-siamo/>"

allowing the interested party to be an active participant and to easily interact with the source itself. Interaction can be achieved through different modalities such as audio, video, virtual environments, games, in order to convey messages and provide convincing experiences. It is noticeable that persuasive technology can have access to areas where human persuaders would not be welcome (e.g. the bedroom). As a tool, persuasive technology can help in various ways to promote change by potentially empowering and making new behaviours easier to control.

## 5. Research Goal & Method

Our exploratory study aims at collecting information on the knowledge and pro-environmental behaviour of university students in order to define a training pathway on environmental issues that can overcome the existing gap between desired and acted behaviour. University students are on their way to acquire the necessary skills to be educators and/or teachers in the near future. It is thus of utmost importance to take into account the environmental aspect in their academic career, stimulating their knowledge and responsible behaviour towards the environment, so that they can become role models for their pupils.

The data collection was carried out on a sample of students enrolled in the Faculty of Education and Training Sciences and the Faculty of Psychology at the Niccolò Cusano University. Data were collected electronically through google forms and participants signed the informed consent and privacy policy. For the collection of information, we used the research team's adaptation of two questionnaires:

- Behavior-based Environmental Attitude (Kaiser et al., 2007), consisting of 40 pro-environmental behaviors, grouped into 6 specific areas (energy conservation, mobility and transportation, waste avoidance, recycling, consumerism, and vicarious behaviors toward conservation).
- Attitudes Towards Climate Change and Science Instrument (ACSI) (Dijkstra et al., 2012). Only two subscales were used in the questionnaire: the Attitude towards the urgency of climate change consisting of 6 items concerning the importance of environmental problems (Berberoglu & Tosunoglu, 1995; Sjøberg & Schreiner, 2006) and a knowledge test on climate change, based on the UN Human Development Report (2007/2008) and Meijnders (1998), consisting of 12 items.

## 6. Data Analysis

The sample for this study consisted of 100 students, including 81 females and 19 males. The average age is 34 years with a standard deviation of 11. The sample is to be considered as a test group, whose answers will have the function of directing operationally the formulation of the psycho-educational intervention hypothesis.

Qualification	%
High school diploma	47%
Bachelor's degree	34%
Master's Degree	19%

The questionnaires were grouped according to the following domains:

1. Attitudes towards the urgency of climate change;
2. Test of knowledge of climate change;
3. Pro-environmental behaviour.

From the analysis of the individual domains, it is clear that there is a lack in terms of environmental knowledge, while on pro-environmental attitudes and behaviour, more than half of the sample is at an above average level. This could mean that, by increasing knowledge levels, this could reflect positively on the other two domains, reinforcing behaviour and attitudes.

#### Pearson's Correlations

Variable		CC Attitude	CC Knowledge	ProA Behaviour	Age
1. CC Attitude	Pearson's r	—			
2. CC knowledge	Pearson's r	-0.182	—		
3. ProA behaviour	Pearson's r	0.268 **	0.018	—	
4. Age	Pearson's r	0.035	-0.245 *	0.447 ***	—

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

The correlation matrix showed a negative relationship between age and knowledge, i.e. the older the subjects, the less they know about environmental issues, while there is a strong positive relationship with pro-environmental behaviour. Pro-environmental behaviour also seems to be positively correlated with attitude. No significant correlation was found between housing density and pro-environmental behaviour. It would seem that attitude and behaviour do not depend on the type of context in which one lives and on being exposed to a certain type of information, so the aforementioned persuasive technology can be seen as a transformational technology, i.e. capable of being part of the change.

#### Model Summary - Comportamento ProA

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	RMSE
H <sub>0</sub>	0.000	0.000	0.000	1.925
H <sub>1</sub>	0.563	0.316	0.280	1.633

#### ANOVA

Model		Sum of Squares	df	Mean Square	F	p
H <sub>1</sub>	Regression	116.097	5	23.219	8.705	< .001
	Residual	250.743	94	2.667		
	Total	366.840	99			

#### Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p
H <sub>0</sub>	(Intercept)	7.540	0.192		39.170	< .001
H <sub>1</sub>	(Intercept)	1.758	1.319		1.333	0.186
	gender	-0.729	0.431	-0.149	-1.690	0.094
	age	0.086	0.016	0.494	5.352	< .001
	qualification	0.009	0.224	0.004	0.042	0.966
	CC Attitude	0.620	0.205	0.265	3.021	0.003
	CC Knowledge	0.295	0.124	0.218	2.390	0.019



The linear regression, carried out considering pro-environmental behaviour as the dependent variable and taking into account the variables "age", "educational qualification", "pro-environmental attitude" and "environmental knowledge", showed that pro-environmental behaviour is explained by age and attitude. This confirms the findings in the literature.

## **7. The proposed intervention**

The information received from the analysis of the data of our survey, even if with the limitations already widely discussed, together with what has been extrapolated from the literature, corroborate our decision regarding the proposal of psycho-educational intervention (Environmental Ministry, 2014). In our panel, although the level of education is medium-high, knowledge on environmental issues and pro-environmental behaviour are at a low average level for the former and medium for the latter. This diverges from the findings of some authors (Blankenberg et al., 2019; Frazen and Mayer, 2010), but at the same time can be partially explained by the endogenous teaching methodology, as Chankrajang and Muttarak (2017) state. This aspect, combined with the correlation found between sense of urgency towards climate change and pro-environmental behaviour make us assert that the effectiveness of psychoeducational interventions cannot be uniformly and uniquely predetermined, as it is necessary to take into account individual internal factors, such as motivations, values, difficulties and external influencing factors, like the context in which the individual is placed. The integration between embodied teaching and digital tools can, in our opinion, create a triple level of intervention, an internal level (values, beliefs, motivation), an external level (family context, community, etc.) and a knowledge level. The didactic project defined by the research team sees the construction of a path in which the three levels intertwine in an exchange between experiences in the natural environment and in the digital environment. In the two environments, students will be fully involved, according to an embodied approach, in order to create a form of learning that is experienced before being conceptualised, with the aim of absorbing, stimulating and training different skills, values and characteristics, depending on the peculiarities of each individual. The educational goal of the course is to foster and develop in participants a greater awareness about environmental issues and to fill the existing gap on pro-environmental behaviors. The course will be composed by 12 meetings on a weekly basis. The preliminary operations described below in Phase 1, Phase 2, Phase 3 and Phase 5 will be carried out in addition to the meetings. The phases are defined as follows:

- Phase 1: analysis of the pro-environmental behaviours acted and those missing, of the present knowledge on the environmental theme and connectedness to nature, through questionnaires already existing in literature (T0);
- Phase 2: definition of target behaviours and knowledge to be developed. This definition will be made taking into account the results obtained by the battery of questionnaires used in this study and, consequently dividing the participants into 3 groups: advanced, medium, beginner;
- Phase 3: planning of the integrated pathway between natural and digital. In particular, digital will allow to draw on a library of different settings, built according to the individual target behaviours;
- Phase 4: delivery of the integrated educational project between the digital and natural environments. This path will be structured in 12 weekly meetings, lasting 90 minutes. Within the meeting we will proceed with a didactic part and an experiential part. The first aims to increase the

knowledge on environmental issues, the second is focused on the amplification of the didactic part, exploiting what is indicated in the research-action model (Lewin, 1946 - Chkoniya, 2021);

- Phase 5: verification of the results obtained by administering the same battery used in Phase 2 (T1) in order to observe any changes.

The integration between the digital and natural environment allows us, on the one hand, to tailor the digital environment to the specific needs of the individual (through multimedia pathways) and, on the other hand, to stimulate connectedness to nature, through bodily experiences in the natural environment that allow the sense of nature to be incorporated into the self-image. The stimulation of knowledge, values, beliefs and motivations in the digital environment, on the specificities of the individual, will be amplified and incorporated into the individual body experience, through the experiences in the natural environment. The learning experienced in the digital environment will influence the reading and coding of the bodily experiences of the individual students.

## 8. Conclusions

We are fully aware that our study presents some limitations, mainly concerning a non-randomised sampling with a limited number of participants and the presence of some instruments not validated in Italy. However, these results were useful to orient and/or confirm our choices regarding the educational programme to be proposed. Overall, the data collected in the exploratory survey and the findings in the literature confirm our conviction that psycho-educational interventions for the development of pro-environmental behaviour are urgently needed to change the approach to the climate problem in the shortest possible time. School is one of the most important agents of change in culture and behaviour, and it is important to work on adults (teachers and future teachers) to develop a twofold level of awareness: the first regarding their personal approach to environmental issues and related behaviour, and the second aimed at acquiring a teaching methodology that gives greater priority to environmental experiences (embodied teaching) rather than to technical notions and skills, although these are also important. Great importance is given to continuous training in many professions and this also applies to the educational profession. The aspect that the study presented underlines, and which we strongly believe is desirable, is the need to intervene on different levels with an integrated methodology, taking advantage of the opportunities that digital technology offers us, without forgetting the importance of corporeality in the learning of both adults and children. It is our intention to continue this work in order to detect the effectiveness of a psycho-educational intervention such as the one proposed, in order to contribute at an educational level to the fight against climate change and all its consequences. It is our conviction that an integrated educational approach is needed, which, in addition to working on different levels and with different tools, touches different age groups, so that it is not only directed at schools but is also integrated into adult education. All this without forgetting the need to start a process of knowledge and awareness of the environmental impact of technology itself in order to be part of a global process that can take into account an overall pro-environmental attitude.

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