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The Importance of Sociology of Education for a Sustainable Future

Edited by

Sandro Serpa and Maria José Sá

Printed Edition of the Special Issue Published in *Sustainability*

The Importance of Sociology of Education for a Sustainable Future

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Editors

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Editorial

Sociology of Education for a Sustainable Future

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Abstract: The Special Issue of the journal *Sustainability—The importance of Sociology of Education for a sustainable future*, aims to offer a contribution to the deepening of the relationship between the Sociology of Education and sustainability. There are seven published papers that, to a greater or lesser degree, problematize this relationship. This editorial presents this Special Issue, the published papers, contextualising this topic in contemporary science, concluding that this potential has room to be fully developed.

Keywords: Sociology of Education for a sustainable future; Sociology of Education; sustainability; socio-educational intervention; education

The relationship between the Sociology of Education and sustainability is not sufficiently explored in the literature, and there is room to develop the potentialities of this relationship [1]. The Sociology of Education is a speciality of Sociology—a pluri-paradigmatic science itself [2]—whose object of study is the influence of the social in formal and non-formal school and non-school processes [3,4]. In this sense, it can offer a contribution to the understanding and improvement of educational processes. In the present case, this is in the development of sustainability, to dismantle preconceived ideas [5] and to contribute to an education as integral development of the individual: “the study of Sociology of Education is understood as a contribution not only to the understanding but also to the critical questioning of the educational realities that hopefully bring about the change of perspectives, attitudes, and possibly even practices” [4] (p. 62).

However, the academic, social, and political status of the Sociology of Education is not very high [1,2], which also hinders its mobilisation—even in an interdisciplinary dialogue with other scientific areas—in the promotion of a “sustainability literacy”, through which individuals will be able to “display competencies and attitudes of respect for the present thinking about the future, safeguarding it in a mindful and intentional way” [1] (p. 102). This may result, inter alia, from the interconnection scale levels, from sociological imagination, from the multi-paradigmatic nature, from heuristic interdisciplinarity, and from the reflexivity and use of Sociology for action [1].

In this scenario, there are several challenges to be faced in fostering the learning of sustainability as economics, ecology, and social equity, and balance for the future [1,6] by all of us. However, studies that articulate the Sociology of Education with the complex phenomenon of sustainability or sustainable development are still scarce [1].

In this context, and thanking the invitation of the *Sustainability* journal to act as editors of this special edition, this Special Issue has been produced. Within the scope of the *Sustainability* journal as a “cross-disciplinary journal of environmental, cultural, economic, and social sustainability of human beings” [7] and as a part of the “Sustainable Education and Approaches” section, this Special

Issue considers that “education in diverse forms and multiple contexts provides the means whereby each generation passes on its culture, discoveries, successes and failures to the next. Without inter-generational education, very little in a human context can be sustainable. Education is also important to formulate, challenge and disseminate ideas, knowledge, skills, and values within communities, from young to not so young, and between communities, nations and continents. Education is identified as a key element of sustainability-focused strategies” [8]. This Special Issue, “The Importance of Sociology of Education for a Sustainable Future”, acknowledges that “sustainable development is a critical concept in the present, and for the future, of humanity, for which Sociology can provide further, new, and valuable contributions” [9] and has the purpose of focusing “on the contributions that Sociology of Education, in a broad sense (encompassing the most diverse formal, non-formal, and informal processes of education, instruction, schooling, and/or socialisation) can provide in the analysis of sustainable development, in different contexts and audiences.” [9].

In order to attain this purpose of this Special Issue—“The importance of Sociology of Education for a Sustainable Future”—11 manuscripts were submitted for assessment. After their review and several enhancements, seven papers were published. This edition encompasses seven contributions, six of which are research papers and one of which is an essay. A brief presentation of these contributions follows.

Başarı, Latifoğlu, and Güneyli, from the Faculty of Education, near East University, Cyprus, present the research entitled “Influence of Bibliotherapy Education on the Social-Emotional Skills for Sustainable Future”. In this paper, the authors acknowledge the high relevance of social-emotional skills and sustainable education, and aim to “evaluate the influence of bibliotherapy education on the social-emotional skills of psychological counselling and guidance candidates” [10] (p. 1). This research concluded that, regarding the differences between men and women in this field, “female students’ scores in the sub-dimensions of emotional expressivity and social control were significantly higher than those of male students. However, it was concluded that male students’ scores in the sub-dimension of emotional control were higher than those of female students” (p. 1); “it can be seen that after receiving bibliotherapy education, females retain the ability to adapt their behaviours according to their situation, developing the skills of playing a role, expressing themselves and maintaining their social adaptivity. [. . .] Nevertheless, it can be seen that the male students’ scores in the sub-dimension of emotional control were higher than those of female students. Based on this result, it can be said that the skills of the male students in combining certain emotions and hiding their feelings under a mask in an effective manner is better than the female students. Hence, it is obvious that bibliotherapy education contributes to male students in terms of developing emotional control skills. [. . .] When the findings of this study are evaluated in the context of the Sociology of Education, the first observation is that the participants in the study contributed to the socialization process. Bibliotherapy training has positively affected the socialization skills of school counsellor candidates” [10] (p. 9).

Pérez-Fuentes, Molero Jurado, and Barragán Martín (from the Department of Psychology, Faculty of Psychology, University of Almería, Spain), and Gázquez Linares (also from the Department of Psychology, Faculty of Psychology, Universidad Autónoma de Chile, Chile), analyse the “Profiles of Violence and Alcohol and Tobacco Use in Relation to Impulsivity: Sustainable Consumption in Adolescents”. This article seeks “to identify different adolescent profiles identified by their tobacco and alcohol use and patterns of violent behavior, as well as to analyze the extent to which such adolescents show impulsivity traits” [11] (p. 1), concluding that “social problems derived from risk behaviors in the adolescent population require intervention directed at developing prosocial behavior while reducing risk behaviour” [11] (p. 2). It is also advocated that “programs must also be designed to promote successful adolescent decision-making for the sustainable development of responsibility, the acquisition of individual resources, and the prevalence of prosocial competencies over involvement in substance use and risk behavior” [11] (p. 9). The authors argue that, as a contribution, the Sociology of Education “proposes priorities for action, such as the following: (1) achieving consequent articulation

between education and strategies for the social development of a community and its current problems, and (2) promoting participation of social sectors in approaching these problems” [11] (p. 7).

Păvăloaia, Georgescu, Popescu, and Radu (from the Department of Accounting, Business Information Systems and Statistics, Faculty of Economics and Business Administration, Alexandru Ioan Cuza University, Romania), in their article entitled “ESD for Public Administration: An Essential Challenge for Inventing the Future of Our Society”, approach “the role of local and central public administrations in promoting sustainable development and building up a better future for society is essential. In order to fulfil this mission, employees in public administration sector must engage in long life learning processes, for the purpose of developing skills such as: anticipation, interdisciplinarity, diversity of perspectives, working with incomplete or complex information, participation in sustainable development processes, cooperation, individual decision-making capacities, empathy, solidarity, and self-motivation” [12] (p. 1). The purpose of this paper was to investigate “what is the Romanian public sector employees’ perception of long life learning as an essential premise of Education for Sustainable Development, by analysing on the one hand the degree of digital maturity of public institutions in Romania, and on the other hand the interest of employees in such institutions to engage in Education for Sustainable Development function of the following disjunct behavioural/emotional states: Disappointment, Conflicts, Satisfaction/Contentment, Doubt, Exhaustion, Attachment. [. . .] The role of non-formal and informal education for individual evolution, without mitigating the importance of formal learning. The three forms of learning complement each other” [12] (pp. 1–2). The Sociology of Education can make an extremely important contribution to these processes, inasmuch as, “from the sociocultural point of view, learning cannot be separated by the context in which it takes place” [12] (p. 3).

Istrate, Horea-Serban, and Muntele (from the Faculty of Geography and Geology, University Al. I. Cuza, Romania) focus on “Young Romanians’ Transition from School to Work in a Path Dependence Context”. This study analyses this issue in Romania, in a context in which, “from the inflexible educational system of the totalitarian regime, when all graduates from different levels of education immediately received a job (to avoid unemployment—a phenomenon that the communist authorities did not tolerate), there was a transition to an educational system marked by frequent structural and methodological changes and by an increasing gap between the educational offer and the real necessities of the labor market” [13] (p. 1). Furthermore, the authors argue that “in the light of the Sociology of Education, the difficulties met by the new generations that enter the labor market after following a previously established educational model, often intended to be changed according to European sociological principles, but with deeply rooted mentalities and structure, actually difficult to alter” [13] (p. 1). This paper concludes that, “when evaluating the results of this study in the context of the Sociology of Education and sustainable development, it can be noticed that the previously established educational model, along the evolution of contemporary Romania, still plays a major role, with the mentalities and structure of the educational system being difficult to change. However, following the results and progress of other central and eastern European countries, it can be noticed that the changes and increasing adaptability of the labor market can be achieved through sustainable education, by creating a durable link between education and economic development policies. A future-oriented education system has to promote values, attitudes, and behavioral patterns suitable for a reality in which both the principles of the Sociology of Education and sustainable development can be found” [13] (p. 18).

Carrasco-Sáez (from the Faculty of Education, Universidad Católica de la Santísima Concepción, Concepción, Chile), Careaga Butter, and Badilla-Quintana (both from the Educational Informatics and Knowledge Management Unit, Universidad Católica de la Santísima Concepción, Chile, and from the CIEDE-UCSC, Universidad Católica de la Santísima Concepción, Chile), Jiménez Pérez (from the ICT Nucleus TIC in Educational and Intercultural Contexts, Universidad Católica de la Santísima Concepción, Chile) and Molina Farfán (from the Educational Informatics and Knowledge Management Unit, Faculty of Education, Universidad Católica de la Santísima Concepción, Chile, and the Faculty of Education, Universidad Católica de la Santísima Concepción, Chile) present the “Sociological

Importance and Validation of a Questionnaire for the Sustainability of Personal Learning Environments (PLE) in 8th Grade Students of the Biobío Region in Chile". In this paper, the authors advocate that "this process of deep social and cultural transformations is characterized by a technological disruption, in which virtuality forms a new dimension that behaves as an extension of human intelligence. This new form of human interaction impacts on the social imagination, demanding one to rethink social and educational paradigms for the two-dimensional citizen. In this context, this research article describes the sociological importance and the process of social adaptation of users to a personal learning environment (PLE). It includes the validation process of an instrument for the study of PLE [. . .], [which is] a frame of reference that can help to understand how two-dimensional citizens socially adapt and influence the sustainability of local and global systems" [14] (p. 1). In this piece of research, the authors argue that "the sociological change is important when there are two-dimensional performances, i.e., performed in physical spaces and through digital interactions [1–7]. [. . .] The concept of a two-dimensional citizen refers to the double face-to-face and virtual dimension of postmodern subjects. They are exposed to the demands of technological disruption. Postmodern citizens solve problems by using the time and space categories of modernity, and at the same time, they communicate, relate, manage information, and manage knowledge in virtual environments. [. . .] This shows that the new complexities of learning are still not identified and the difference between being a consumer of information and being a knowledge manager cannot yet be recognized. [. . .] This requires a new sociological conceptualization, since cultural processes such as transculturation, acculturation, and endoculturation have become more dynamic" [14] (p. 2). The paper concludes that "the digital citizens of the cultural transition are exposed to profound changes in their human behavior. These tendencies are associated with the technological disruption that we experience and which characterize the so-called fourth industrial revolution, provoking new needs and demanding redefinitions of roles and new scenarios in education. [. . .] These questions pose challenges for education in this cultural transition. It is possible to confirm, according to different authors, that the formal education system" [14] (p. 11).

Agirreazkuenaga (from the Research Group on Human Security, Local Human Development and International Cooperation (2016–2021) Consolidated Group of the Basque Research System (IT1037-16), Hegoa Institute, University of the Basque Country (UPV/EHU), Spain) in "Embedding Sustainable Development Goals in Education. Teachers' Perspective about Education for Sustainability in the Basque Autonomous Community" analyzes "the implementation of educational practical experiences of the education for sustainability programs from the perspective of teachers working in secondary schools in the Basque Autonomous Community" [15] (p. 1). The paper concludes, in short, that "the involvement of the teaching staff, personal motivation and good leadership are essential for the success of the program, together with the support of school authorities. A stable teaching staff and a sense of identity with the project are decisive factors" [15] (p. 1) for the successful learning of the Sustainable Development Goals, and that the potential contribution of the perspective of the Sociology of Education should be considered in a process that is necessarily interdisciplinary.

Finally, there is the essay by Sommer (from the Department of Romance Languages and Literatures, Harvard University, USA) and Sacco (from FBK-IRVAPP, Italy; Department of Humanities, IULM University, Italy; and metaLAB (at) Harvard, USA), entitled "Optimism of the Will. Antonio Gramsci Takes in Max Weber", which puts forth a critical dialogue between Max Weber and António Gramsci, in which "Gramsci's confidence in the transformational role of creative culture provides a framework for understanding a new wave of inclusive artistic practices that originate in the Global South and that revive the arts as vehicles for active citizenship. Participatory art can re-enchant today's sorely disenchanting socio-cultural world of mature capitalism" [16] (p. 1), ultimately, for a sustainable democracy.

In summary, and as a conclusion to this editorial that presents the Special Issue "The Importance of Sociology of Education for a Sustainable Future", it is evident from the articles published in it that there is a wide variety of themes where the Sociology of Education can, in articulation with other scientific areas, offer a valuable heuristic contribution to the understanding of this field of knowledge

and to the improvement of its practices. The published articles are clearly relevant contributions to the development of this topic and leave room for its subsequent deepening and questioning. This special issue seeks to be a contribution to bridge this gap, insofar as it is clear that “the potential of Sociology and its specialties has not yet been attained in addressing these issues, despite its heuristic ability in the study and promotion of the teaching of sustainability” [1] (p. 111).

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Article

Embedding Sustainable Development Goals in Education. Teachers' Perspective about Education for Sustainability in the Basque Autonomous Community

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Abstract: In the current context of unsustainability that we inhabit, education is considered to be a necessary pillar for social transformation towards sustainable development. The main goal of this research is to analyze the implementation of educational practical experiences of the education for sustainability programs from the perspective of teachers working in secondary schools in the Basque Autonomous Community. The analyzed schools are situated in different socio-economic and environmental contexts. The analysis also aims to diagnose the extent of knowledge on the 2030 Global Agenda of Sustainable Development Goals (SDGs) with a view to its future implementation. The study is based on qualitative tools such as in-depth interviews (38 interviews conducted at five secondary schools). For analytical purposes, the perspective of the teaching staff is adopted as they play an indispensable and determining role in education for sustainability. The main results showed that the involvement of the teaching staff, personal motivation and good leadership are essential for the success of the program, together with the support of school authorities. A stable teaching staff and a sense of identity with the project are decisive factors. In this sense, differences were detected between public schools and private schools that, to a certain extent, condition the difficulties faced by the teaching staff. Experiential activities, activities outside the classroom and a positive perspective on the subject are considered factors contributing to the success of the programs. SDGs were still largely unknown to the teaching staff but could provide a good framework for multidisciplinary education.

Keywords: education for sustainability; ESD; teachers; learning for sustainability; sociology of education for a sustainable future; Agenda 2030; Sustainable Development Goals; School Agenda 21

1. Introduction

Since the middle of the 20th century, human impact on the planet has been expediting a process known as 'the great acceleration' [1], in which the impact of the human species has multiplied. This process entails an alteration in the cycles of materials, the accelerated rate of the extinction of species and the appearance of new contaminating materials, which in turn have a great effect on the welfare of people [2]. In this respect, the International Geosphere-Biosphere Programme (IGBP) has proposed a definition for a new geological age characterized by the human impact on the planet equaling or surpassing the forces of nature: The Anthropocene [3].

The capitalist model of economic growth and its mode of living are proving to be unsustainable because the planet has limits. The current model of consumption requires an expenditure of natural resources and energy that the planet will be unable to sustain for much longer. The planet is now in a

state of economic deficit, since the ecological footprint is greater than its bio-capacity. The world deficit per capita is 2.6 hectares per person [4].

Facing this situation of consumption that exceeds planetary limits, new technological alternatives are starting to emerge, such as renewable energies [5]. Nonetheless, in spite of these advances, it continues to be absolutely necessary to change the model of production and consumption [6]. This involves a change of habits, and therefore a change of mentality, which entails cultural and social changes. To achieve these changes, it is indispensable to develop environmental awareness in civil society, the business sector, the public decision-making powers and citizens in general.

To confront the global challenges we face, education has a decisive role to play in directing societies towards changes that will result in a sustainable future. This context framing considers education to be a key tool in response to the global socio-environmental problems of the planet, and the potential of Sociology of Education (SE) for advancing research in this field is underscored [7]. Specifically, the role of the teaching staff is of decisive importance, since they are responsible for educating future generations [8]. Some authors highlighted the key role of the teacher as the leader in education for sustainable development [9]. Moreover, in higher education, the involvement of teachers is considered a key factor in reaching sustainable innovation [10].

The United Nations' 2030 Agenda defines 17 Sustainable Development Goals (SDGs), providing a tool for reaching an integral understanding of what sustainability entails. This research is based on the idea that sustainability and sustainable development involve economic, social and environmental dimensions, with the understanding that the social and ecological dimensions are linked, and that the social and economic dimensions depend on the environmental system [8,9]. That is, the welfare of the planet and the biosphere is a priority for social and economic welfare (Figure 1).



Figure 1. A view of the Sustainable Development Goals (SDGs) showing that healthy ecosystems are a prerequisite for human welfare and economic development [10].

Having identified the need for understanding and studying education for sustainability, we shared that concern with key actors in the area of education for sustainability in the Basque Country, and defined the object to be studied. It is also worth underscoring that the definition and idea of this study arose from a four-month stay involving a collaboration with Ingurugela, the public institution for Education for Sustainability in the Basque Autonomous Community (BAC) (extended explanation Section 2.1).

The general goal of this research is to analyze the key factors with respect to methodologies and the attitudes of secondary school teachers towards education for sustainability. Taking concrete cases of secondary schools in the BAC, the implementation of education for sustainability projects is analyzed from the perspective of the teachers. The case studies are located in different socio-economic and environmental contexts. The analysis also attempts to evaluate and offer a diagnosis of the degree of knowledge about Global 2030 Agenda and its future implementation. Therefore, the specific aim of the

research is to identify keys to successfully implementing and imparting knowledge about education for sustainability and SDGs, which is then reflected in a change of attitude.

The SE, a specialization of sociology as science [11], can contribute to the sociological understanding of educational phenomena [12,13]. The teaching staff, as a professional group, is one of the objects studied by SE [11]. The contribution of this research is inserted in the field of SE, by means of direct, first-hand knowledge of a topic that is of transcendental importance to the survival of the planet. This empirically-based research aims to explain an aspect of the educational process that affects the teaching staff and its ongoing training [14].

The present paper begins by providing a short, conceptual description of education for sustainability (in the case of this research, the terms environmental education and education for sustainability are used interchangeably [15]), followed by an explanation of the context of the analysis and the methodological strategy employed, and then the main results are set out and the text ends with the discussion and conclusions.

2. Materials and Methods

2.1. Research Background and Context

On an international level, the pioneering congress at which environmental education started to be discussed was held in Tbilisi in 1977. The topic was subsequently addressed at the Rio Summit in 1992, where Agenda 21 was defined on the request of civil society, administrations, governments and international representatives. The goal of this Agenda 21 is to involve society in carrying out actions aimed at achieving sustainability at the local level, with the aim of contributing to global sustainability of the planet. From this emerged the now well-known statement, ‘Think globally, act locally’. School Agenda 21 was defined as complementary work for carrying out actions towards sustainability in local schools.

Within the framework of this international context, education for sustainability was promoted in the BAC, and in 1990 the Centers of Education and Research in Environmental Didactics (CEIDA—Centros de Educación e Investigación Didáctico Ambiental) were created, nowadays known as Ingurugela. The goal of Ingurugela is to support the teaching staff and encourage education for sustainability in non-university education centers. The BAC has a territory with 2.17 million people [16], which is a density of 300 inhabitants per km². In spite of it being a highly urbanized territory, its culture is characterized as being closely linked to the natural setting, an aspect that offers great potential for a transition towards sustainability.

School Agenda 21 began to be implemented in 2003 and became the backbone of education for sustainability in the schools of the BAC, with the support of advisers from Ingurugela. There are also other initiatives in this sense that emerged from civil society, non-governmental organizations, ecologist groups and others. This research takes the public institution Ingurugela as a referent of education for sustainability in the BAC, although it identifies several other organizations where work is done on this topic. Currently, an attempt is being made to move from School Agenda 21 to Agenda 2030, taking the latter’s integral and holistic vision as an axis. This process is aligned with the recent Strategic Plan for Education for the Sustainability of the Basque Country [17]. On the one hand, this strategy is in line with the Environmental Strategy of the Basque Government 2020, based on the 2015–2030 international agenda of the Sustainable Development Goals, and on the other, it aligns with the specific Global Action Plan of UNESCO on Education for Sustainable Development.

Ingurugela is a network of advisory and teacher training service on Education for Sustainability, for the non-university education system. They were created in 1990 by the Department of Environment and the Education Department of the Basque Government, following the identification of the need for public administration to provide and develop counselling with respect to education for sustainability.

School Agenda 21 (henceforth SA21) is an educational program for sustainable development. It forms part of the ‘Research and Experimentation’ line of work of the Ingurugela educational

centers. The annual work of the Ingurugela educational centers is defined on the basis of the Basque Government’s Environmental Education Program (Order of 22 June 1998 of the Official bulletin of the Basque Autonomous Community –BOPV- of 1 October 1998).

The program’s organization in the schools is as follows (Figure 2):

- The coordinator is responsible for setting the process underway and leading it.
- The support team is formed of people from the teaching staff and school authorities who help in the day-to-day work of organizing the project.
- The Environmental Committee is a participatory space for the whole educational community. The people interested are represented and decide on the main lines of the program (planning, plan of action, evaluation, etc.).
- The county-level coordination meetings are a space for cooperation amongst the educational centers. The coordinators of these centers meet periodically with environmental specialist from the municipality and the adviser from Ingurugela.

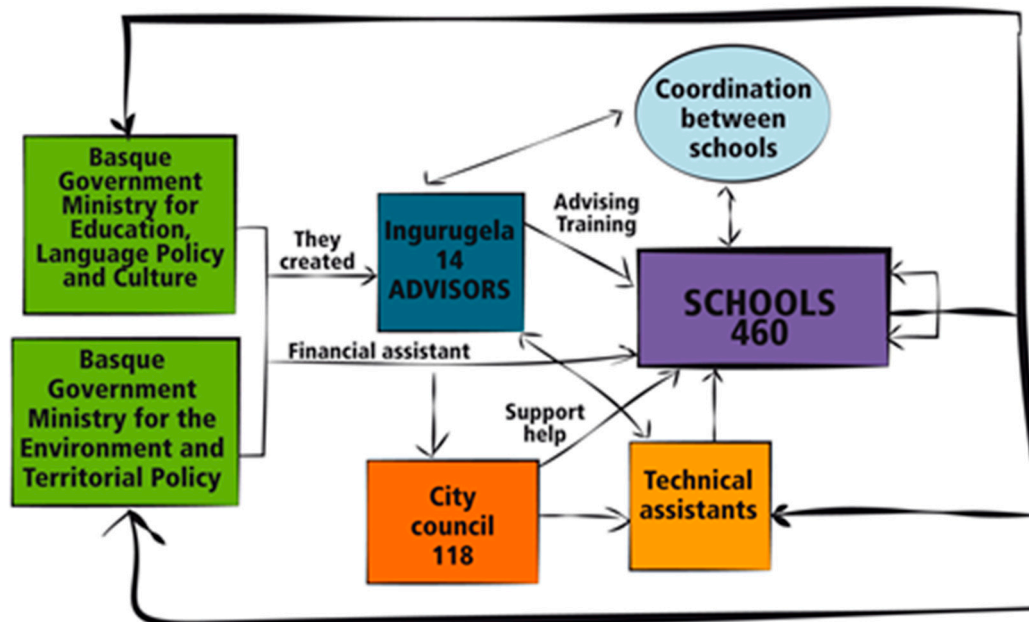


Figure 2. The organizational scheme of the School Agenda 21 program [18].

In turn, the aim of certification and recognition as a ‘Sustainable School’ is to give a distinction to outstanding experiences in the SA21 program. This means recognizing the work and the quality of the school with respect to education, participation and sustainability (Figure 3, sustainable schools are marked with a red star).

In order to take part in this examination, the schools must have spent a minimum of 5 years in the SA21 program. Recognition lasts for 4 school years. A total of 460 schools took part in the SA21 program in the 2017/2018 school year, with approximately 60% of the schools belonging to the BAC as well as 118 municipal councils participating.

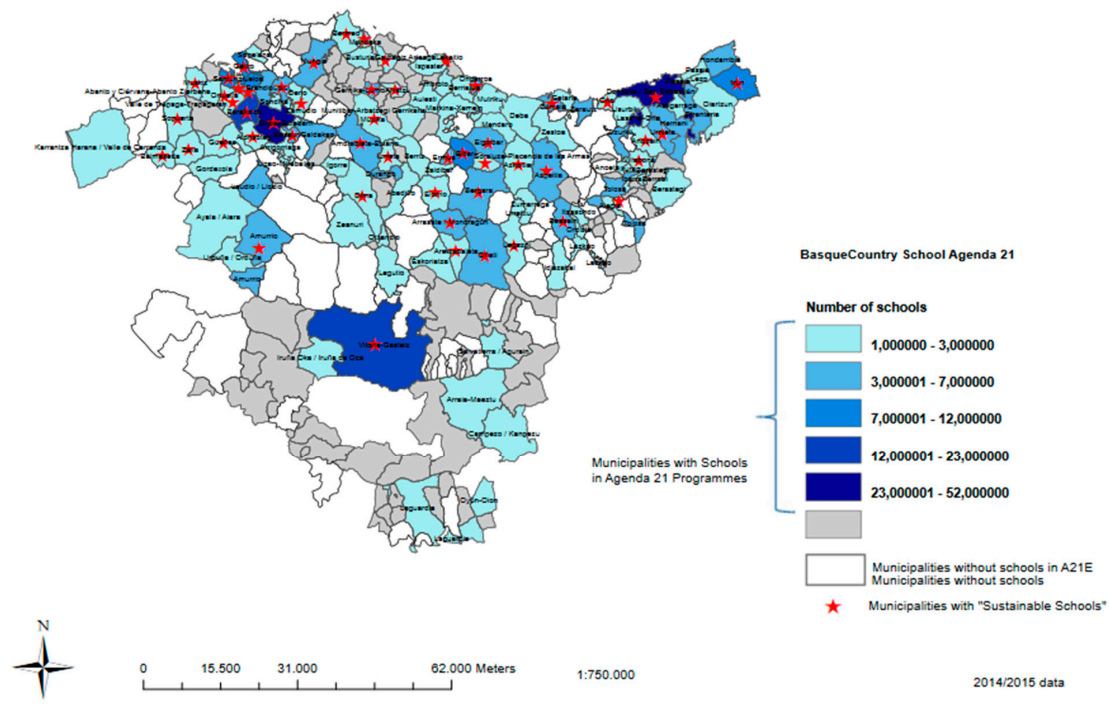


Figure 3. A map of the Basque Autonomous Community, showing schools taking part in School Agenda 21 and municipalities with schools certified as a ‘Sustainable School’ (for the 2014/2015 school year) [19].

2.2. Sample and Research Strategy

When defining the schools for inclusion in the sample, we selected those certified as sustainable schools by the Basque government (some of which are shown in Figure 3 indicated by red stars), to guarantee a certain level of commitment and the realization of activities framed in the SA21 project [20] (pp. 41–42). Similarly, we selected schools located in different socio-economic and geographical settings to obtain a diverse sample.

At schools considered sustainable, a topic is dealt with each year and relevant activities are designed and carried out around this. For example, the topic of the year might be climate change, waste or circular economy and activities to be carried out during the school year are designed around that central axis. These are the profiles of the schools where we carried out the study. At the request of those interviewed, no names are given so as to avoid generating any stigmas.

- School A: This is a public school located in an urban area. At this school they have been working with School Agenda 21 since 2004, and it has been certified as a sustainable school since 2009, a certification that has been renewed every 4 years.
- School B: This is a public school located in a municipality considered to be semi-rural. The link between School Agenda 21 and the municipality is an especially close one as it is the only school in the town. They have been involved in School Agenda 21 together with Ingurugela since 2001 and were certified as a sustainable school in 2010, which was subsequently renewed in 2018.
- School C: This is a private school located in a semi-rural area. The School Agenda 21 project has been in effect in the school since 2007 and they obtained recognition as a sustainable school for the first time in 2016.
- School D: This is a private school located in a semi-urban municipality. The School Agenda 21 project has been put into effect in this school since 2007. They obtained recognition as a sustainable school in 2014. The majority of the students in this school are from that same municipality, with the result that they have a direct link with the town in relation to the local A21.

- School E: This is a private school located in the city center of Vitoria, the capital of Alava. The School Agenda 21 project has been in effect in the school since 2007. They obtained recognition as a sustainable school for the first time in 2009–2010, and this was renewed for the next four years in the 2017–2018 school year.

To obtain specific results from the schools analyzed, we mainly used a qualitative methodology, that is, one “that produces descriptive data—People’s own written or spoken words and observable behavior” Taylor and Bogda [21]. Through qualitative practices, it is possible to verify that the object studied is made up of a group of subjects and that each subject is in movement, including the social science researcher [22]. For that reason, it is necessary to reconstruct and interpret the route created by these subjects. Qualitative analysis proves to be especially relevant in education, given that it is important to understand how teachers and classrooms function before making recommendations for change. And that is the purpose of a deep qualitative examination of education, which involves understanding and ‘paying attention’ to the context [23].

The (individual) in-depth interviews were chosen as the main tool, since our selected sample “does not aim for statistical representation, but for a socio-structural typological representation corresponding to the objects of study” [24] (p. 68). A total of 38 interviews were conducted with secondary school teachers at 5 schools in the BAC. We chose to analyze this topic from the viewpoint of the teaching staff, as we considered that they play an indispensable and decisive role in generating an education with values oriented towards sustainability. It is worth underscoring that the profiles of the teaching staff interviewed are varied. These include teachers of biology, technology, computers, plastic arts, mathematics, languages, physical educational, philosophy or geography and history. This was in order to obtain a diverse sample that would be as unbiased as possible due to the subjects taught by each of them. Likewise, their ages and professional experience also varied, ranging from people with more than 25 years of experience to others who are in the early years of their professional career. The average age of the teachers ranged from 30 to 50, and there were teachers who had been in the world of education from the start of their careers, while others had previous experience as researchers in the university or even in private companies (Appendix A. These interviews were conducted by the researcher between April and June 2018, followed by different visits to each school. Similarly, the head teachers of the different schools issued a letter agreeing that the school would participate in this research.

To design the interviews (Table 1) we used the Wengraf decision-making scheme with the following steps: (1) Definition of goals and central research questions (CRQ); (2) Translation of each central question into three and seven theoretical questions (TQ); (3) Development of sets of interview questions (IQ) or interview interventions (II) for each theoretical question, taking into account the class of interviewee or informant [25]. Similarly, to carry out point 2, the scheme proposed by Kvale was taken as a reference [26] (p. 131).

The analytical approach employed when dealing with the material transcribed from the interviews basically consisted in an interpretative, socio-linguistic and semiological discourse analysis. This involves a ‘qualitative paradigm’ [27] insofar as it is associated with interpretative epistemology (the intersubjective dimension), focusing on the individual subject and in discovering the meaning, motives and intentions of their activity [28].

Table 1. Interview design scheme.

Thematic Research Questions (TRP)	Dynamic Research Questions (DRQ)
TRQ 1: Context: Do their previous working career and background influence the teaching staff's motivation and involvement in the School Agenda 21 programs?	DRQ 1: What was your working experience before you started working here?
	DRQ 2: How long have you been working at this school? Tell me something about your job, the subject you teach, the methodologies you use (games, workshops, individual reflective tasks . . .) and other tasks.
TRQ 2: What is the teaching staff's level of knowledge and how do they perceive environmental education? (To adapt to the context, we opted to use the concept 'environmental education' when designing and conducting the interviews, since it was a more familiar concept that has been more frequently used and taught in classrooms to date.)	When we talk about Environmental Education: What comes to mind/what do you identify it with? What types of projects/methodologies?
	What contact/involvement have you had with Environmental Education at this school?
	(In cases where the topic is dealt with in the classroom): Do you deal with any environmental problems in the classroom (Local or global perspective?)
	How do you think that these programs (Environmental Education) are viewed by the teaching staff? And by the students/their families. Why?
TRQ 3: From the teaching staff's point of view: What are the challenges and opportunities of the SA21?	Specifically with respect to students' families: How do you inform and involve them? How do you see this?
	What things do you think work when dealing with the topic of Education for Sustainability? That is, what type of activities, projects, methodologies.
TRQ 4: What do you know about the concept of sustainability? What attitudes, motivation and behavior do you show/teach?	What do you think are the main challenges?
	Are you familiar with the concept of sustainability? What do you understand by, or know about this concept? How would you define it in just three words (what do you associate with the concept)?
	In the specific context of this school, how is this subject dealt with? What do you show?
TRQ 5: Do you relate sustainability with the holistic and integral idea posited by the SDGs? What knowledge is there about the SDGs and what does move from the SA21 to the SDGs involve?	How do you deal with this in your personal life? Do you illustrate what you teach in the school with examples of activities taken from your personal life?
	What would you say motivates you to hold that attitude? Do you try to transmit that attitude in class?
	Continuing with the topic of sustainability, have you heard anything about the SDGs?
	How do you think this can be included in this new agenda?
	Would it be positive to move from School Agenda 21 to Agenda 2030 involving the SDGs? Why?

3. Results

This research is based on qualitative methodologies that uses in-depth interviews [29] with teachers currently working at different schools as its main tool. The following are the principal results arising from the field study, divided into the central blocs previously defined in the interview design.

3.1. Context and Career of Teaching Staff

The principal result is that teachers in public schools have been working between 15 and 30 years and have often changed schools in the course of their career. This is due to the hiring system that incorporates teachers into schools in the public sector, which involves their assignment to a series of schools until they finally obtain a permanent position. Similarly, the majority of the interviewees from public schools with a short career were carrying out substitutions in schools for a period of a few months or at the most for the current school year. Conversely, this situation is not found so widely in the private schools, since the majority of the interviewees had only worked at their particular school or

at most in one other. It should be kept in mind that access to private schools is by means of a direct contract with the school.

This question influences the extent to which the teaching staff develop a sense of identification with the school and thus with the School Agenda 21 (SA21) project, with the result that there is a greater sense of identification with the SA21 project in private schools than in public ones. This situation does not necessarily translate into better results in some schools rather than others, but it does affect the ease or difficulty with which the coordinators and the support team can develop their work. Teachers who feel that the school is a part of their life, and not simply a place of work, have assimilated certain tasks to a greater extent, with the result that these tasks now form “part of the school’s identity” for the teaching staff and hence also for the students. “At first it required making an effort, but nowadays I consider it to be completely natural” [30].

On the other hand, interviews were conducted with teachers of different academic subjects like biology, physics, chemistry, physical education, philosophy, languages, mathematics, history and geography, amongst others. In the majority of their discourses, they identified environmental education with teachers in the area of the natural sciences. Nonetheless, some of the teachers in this area insist that the task is not their responsibility alone. There are also some teachers from the social sciences who identify environmental education with their area, but they are a small minority. The coordinators were from the teaching field of natural sciences in all but one of the five schools studied. Furthermore, it is possible to perceive that the discourse on environmental education is constructed differently depending on whether or not the interviewee proceeds from the social sciences, the natural sciences or technology. Each teacher approaches the topic from their own way of thinking and relates it to the content that they teach in their classroom subject, “For example, I try to get them to reflect about computers, where they come from and where they go when we get rid of them” [31]; “Reflecting on happiness, whether or not material goods make us happy, and what all of that consumption of material things implies for our planet” [32].

One final point is that the immediate surroundings of each school are not reflected in the activity developed by the teaching staff, as a large part of them are not from the locality where the school is located, above all in the case of the public schools. However, in some private schools, like schools D and E, all the interviewees are from the same locality, which generates a much stronger link to what School Agenda 21 means for the municipality’s Local Agenda 21.

3.2. Perception and Understanding of Environmental Education

In the first place, it should be underscored that all those interviewed directly identified environmental education with the SA21 project. In one of the interviews, the interviewee was trying to understand what the purpose of the interview was and asked: “By that I take it that you are referring to Agenda 21?” [33]. This indicates that the name is at least widely known, although at the same time the topic is reduced to SA21.

The picture that emerges is that nobody objects to the need for implementing projects on the topic, they are well-informed and familiar with the socio-environmental problem, and believe that action must be taken to tackle it. Subsequently, however, on a day-to-day basis they do not act in the way they say that they should. That is, the project is perceived as something necessary that must be worked on, but they do not dedicate the necessary time to it. In some cases, this can be explained by the limited commitment shown, while in other occasions concern is expressed that the topic is not given the importance it merits. In cases where the teachers show concern, they propose ideas like giving it a more ‘central’ timeslot in the academic timetable, amongst other things.

Sometimes, the problem we have in education is that actions which are not evaluated and measured academically—i.e., examined—are left aside and have less weight. My concern is with how to give more time, more weight to the topic . . . in general it is taught in the last hour of class . . . perhaps it should be mid-morning . . . during a central timeslot, to give

more importance and presence to the topic. I think that this topic should occupy a central place in today's education. [32]

Another perception is that a reduced set of ideas is being covered, above all restricted to recycling, "yes, I know they do a lot of things, there is recycling in all classes, there's a bin for plastic, one for paper and one for the rest", according to one literature teacher from school D who continues, "I can't pay much attention to it in my class, because I am teaching the Spanish language; they possibly do more in the natural sciences". Similarly, the idea is stressed that, "a lot of things are being done", which is considered very positive, but there is still a long way to go.

In sum, environmental education is perceived as something very important, something that is essential to work on and there is a lot of talk about the need for change, but little action is taken in that respect. There is still a gap between environmental awareness on the one hand, and the motivation or will to work on the topic in the classroom and obtain conscious attitudes and actions in that respect, on the other.

3.3. Challenges and Opportunities for Continuing to Advance: Keys to Successful Implementation

One of the problems repeatedly encountered is 'time'. It is frequently observed that little time is available for covering all the material in the corresponding school subject itself, and even less for dedicating classroom time to topics related to SA21, "time is always the obstacle; we have got a program to cover and we have to introduce it into that program, so that it's not just a loose item. That's what I consider to be most difficult, integrating the program and Agenda 21; that's one difficulty and the time available is another. In our field it is easier or harder to tie it in depending on the topic you are teaching. For example, you can do this with functions but not so easily with square roots" [34]. The teachers mention that there is sufficient classroom time for this topic, but that time is usually spent covering topics that the students find more important or relevant, while those related to SA21 are treated as less important. Additionally, they usually add the comment that their classroom time is "completely filled up with activities". However, they do recognize that carrying out such tasks is a necessary part of their profession as teachers and that without such projects, nothing would be done:

On the one hand, you feel disinclined when you find you've received an email: 'You must insert topics like M8, SA21 into your annual plan for teaching Basque' ... with respect to SA21, yes, I'm very aware of it, I would demand it and obviously I would always do it. And this ... it makes you feel disinclined, but there's no alternative, because if it depended on our own initiative it wouldn't get done. If they didn't make us, we'd leave it aside ... at least we've got something programmed. Perhaps due to worry, due to necessities or due to disinclination, but on the other side there's one's own awareness, however small that might be. [35]

In the same vein, the role of each teacher's awareness or personal involvement is identified as a challenge. That is, the school's project for environmental education is implemented in the school with greater or lesser dedication and effectiveness, depending on the commitment of the teaching staff. Several SA21 school coordinators mentioned that this is the reason why, they turn to those members of the teaching staff who think along the same lines as they do or are the friendliest, to be able to carry out the project,

The importance of the role of the school authorities is an idea repeated at several schools. If the project is implemented strongly by the school authorities, and if they are perceived as firmly believing that the project forms one of the school's central axes, then the teaching staff become involved, irrespective of their personal awareness of the topic, since they understand that it forms part of the school's identity, "from the start the school authorities believed in this project and made available all the necessary tools and resources for carrying it out", according to the SA21 coordinator at school E. The authorities at the same school stated that, "the project coordinator has a high leadership capacity and is also personally very conscious. I believe those are the keys to the project's success" [36]; "We've

been very lucky with the people in charge of the project, the coordinator's personal involvement is notable and her awareness and ethics are highly developed" [37]. Although this is identified as a key idea in all the schools, not all of them have the same working reality, which is identified as an obstacle. This idea is also held by teachers with a lot of experience on working on the topic, who shared their opinions at a meeting and in informal conversations and interviews. They agreed that when a school 'adopts a project as its own', this identification creates a link that naturally results in much greater involvement.

The age of the students the interviewees work with is perceived as a possible obstacle but also as an opportunity. On the one hand, a recurrent idea is that "at that age what students are worried about is what they're going to be doing at the weekend, or what clothes to wear. They're interested in everything except what we're trying to teach them" [38]; "Age is a problem, they're always going to go against what we tell them, they're at that stage in life, adolescence" [39]. On the other hand, "it's true that in primary education they're willing and happy to do all types of activities, with complete enthusiasm, unlike in secondary education. But in secondary education they have a capacity to reflect that enables them to tackle topics in class in a deeper way. For example, this talk that is being given here at the moment by the humanitarian aid worker who works in Lesbos, Greece, could not be done in this way in primary education, and that opens other doors" [37].

When it comes to identifying opportunities, it is more a question of identifying those activities that work and that must be further developed. In this sense, one clear idea stands out: To obtain positive results and successfully implement the activity, it is essential that it should be something that involves practical experience, in which the student gets involved with her own hands, outdoors, in contact with nature. For example, at school B, the school's SA21 coordinator told us that according to his experience, several projects, talks and other activities were carried out each year. But he believes that the students will remember one activity especially; when they went to clean the town's river.

The need to carry out experimental activities is emphasized, although this is not always possible:

To be able to write about rain, they have to feel it on their own skin . . . Yes to theory, but where is the practice? I believe that that is a problem with education. The theory gets taught, but then they don't go outside to look at the flowers. Perhaps it's because of the pressure of the amount of content to be worked on. But I believe that is a mistake. People have to touch, to smell, they have to feel it. [40]

It thus becomes clear that outdoor activities in natural settings have the greatest impact on environmental awareness. However, some obstacles are also encountered, since "all of them are always willing and happy to do activities outdoors, but the problem is when we ask for money, even if it's only 2 euros, in the end there's the mounting cost of all the school materials, and at our school 60% are grant-holders" [39]. This can be perceived as forming an obstacle in the public schools unlike the private ones.

We also encountered the idea of the importance of having a good team with a good leader for obtaining good results. The need to have one person as a referential figure who is seen to believe in the project. For example, at school C they say that for the last two years the project has been coordinated and led by a person who has a lot of contact with most of the staff, unlike the previous coordinator. They mention that they now know each other better and this factor, amongst others, might be one of the keys.

On the other hand, an interesting idea that emerged regarding the approach employed with students is that a negative perspective is often used and this does not help in attaining the goal of raising the students' awareness and sensibility prior to doing the activity. This is mentioned by the social sciences teacher and SA21 coordinator at school B:

The students are interested in things. But often things are 'sold' to them from a perspective of culpability of the type: 'we do everything badly and that's why the world is in a bad state' and so they don't want to know anything else about the topic. I think we have to part ways

with that perspective. For example, in the 3rd year social sciences class many things are given a bad evaluation and I think we have to invert that. [41]

Continuing with this line of thought, an interesting reflection was provided by the philosophy teacher at school C. Based on his experience, he thinks that there are many ways of addressing the topic, not just from the perspective of defending the planet, and it might be more effective for getting students to reflect on excessive consumption by approaching it from the perspective of happiness.

Does this level and form of consumption make us happy? . . . In this way we start to analyze the repercussions of our addiction to consumption, whether or not all these objects fill that vacuum we might feel . . . in the psychology class they can be transversal questions. And of course they are linked to the topics of ecology and caring for the planet. But also to the many traps in our way of living, since we are all under the power of advertising. This can be addressed, not only at the existential level, but also at the level of everyday life, by discussing the lies that are found behind consumerism. In that sense we find a link for dealing with these topics. [32]

3.4. What is Understood by Sustainability?

In general sustainability is a word that ‘frightens’. There is the case of the interviewee who said that it was not a topic that he kept up on and that he did not understand it very well, with the interviewer then having to stress that the aim was not to provide a perfect definition but to determine each person’s perception and ideas.

A recurrent idea was sustainability understood as balance, “a balance between what we spend and what we have” [42]; “maintaining natural resources over time” [43]; “finding the balance between what we have . . . and what we need” [34]; “a reflection on what is generated by our life and presence on the planet, what paths we are taking” [44].

On other occasions, sustainability is only considered in relation to recycling. Once again, we encounter a reductionist idea of what is involved in acting responsibly to respect the environment. Although there is talk about the need to cut down on our consumerist lifestyle and all that it generates etc., this is not the general pattern of thought.

Finally, it should be underscored that sustainability is automatically related to environmental sustainability and that this is a widely-held idea. When we speak of sustainability we are also entering into the game of social and economic sustainability, but this dimension is only mentioned on a couple of occasions. Above all, sustainability is related to the question of gender equality and social equalities.

3.5. Motivation and Intentions: Why Work on Environmental Education?

This question was only included with people who showed an interest in the topic and with the coordinators. Two results were obtained in this respect. On the one hand, there are those who work on this project out of conviction and their own awareness of the topic, and on the other, there are those who, although they are aware of the topic, only work on it ‘because it was assigned to us’. Once again we encounter personal motivation.

It should be underscored that the administration (Ingurugela) makes a positive contribution to doing work on the topic through its provision of support. It provides materials, counselling and training, as well as spaces where experiences can be shared with students. In any case, in spite of that, we once again find that it is personal commitment and sensibility that continue to be the most relevant factors.

All of the people interviewed are convinced that it is a topic that should be worked on, that it is a necessary issue. They are well-informed about the problem and about global socio-environmental crises, the repercussions on the future of the planet and future generations and about the urgent need to pass on these values of respect for the planet and attitudes for a more sustainable life. However, the majority, in spite of repeating this discourse and indicating that they know about the topic, do not

work on it in class. Their justification is that this question is not included in their school subject, that they have no time or that it is covered in tutorials.

3.6. Knowledge about the Proposal of the SDGs

The question of the SDGs is not yet a familiar one, and the two schools where it was most discussed are both in the private sector. The reason for this is perhaps that in the private sector every year they make an effort to update themselves and ‘keep up with the latest developments’ and that is why they started to discuss the SDGs, which they understand to be a key line of work. It is at school E where Agenda 2030 has been most embedded in their activities, with its goals and integral view used as a work tool.

In the context of the SDGs, the interviewees were asked about working on the different programs included at the school (co-education, gender equality, School Agenda 21 etcetera), with all of these integrated under the umbrella provided by School Agenda 21. There are different opinions in this respect. Some consider that it would be ideal if everything were to be integrated as proposed, but that at present the logistics are perhaps not so simple. On this point, some concerns and reflections were expressed about the lack of communication amongst the departments responsible for the different school subjects, “in some cases it can be easier to work together because we are physically close, but everyone gets on with their own concerns” [45]. On the other hand, there is the idea that it is better for each subject to preserve its identity and be kept separate.

4. Discussion

4.1. The Attitude of the Teaching Staff

Environmental education is a tool with a high potential for contributing to social transformation towards a sustainable lifestyle. Education and educational centers play a leading role in implementing sustainable development [46]. Education has a key role to play in activities on the path towards a more sustainable future, although educational practice must be specifically adapted to its target audiences [47]. In the specific field of formal education, in all the cases studied in this research, the teaching staff are the key element for successfully putting the programs of environmental education into practice.

In this respect, we observed that individual awareness and sensibility determines the motivation, and thus the work that is done in the school. Our research underscores that the great majority of the teaching staff show concern for the environment; nonetheless, it also reflects the scant commitment to an active pro-environmental position in the classroom or in the personal sphere. Studies carried out from the perspective of environmental psychology, like that of Thomson and Barton (1994), show that in spite of holding values that favor the environment, it is difficult to change personal behavior and involve oneself in change, especially if this calls for sacrifices or involves inconvenience [48]. Some reasons are identified that might affect this disconnection between a pro-environmental attitude and behavior, which tend to contradict each other. There are several models that analyze this relation amongst values, attitude and conduct, such as Schwartz’s scale of ecological values [49], Dunlap and Van Liere’s methodological tool—the New Ecological Paradigm (NEP) [50,51] or Hines, Hungerford and Tomera’s model [52]. What all of these models agree upon is that initially it is necessary to possess information and have a good understanding of the problem, and that the corresponding behavior will come later. It must be borne in mind that the teaching staff are a part of society and therefore their concern about the environmental problem is not necessarily linked to their classroom work, as our study clearly showed.

The current theoretical frameworks of education for sustainability must be embedded in the educational curricula of the teaching staff at teachers’ training colleges in order to promote awareness and develop sustainability skills in students, who will be the future teachers. ‘Sustainable education’ is a necessary, holistic, educational paradigm that advances towards a sustainable culture and

lifestyle [15]. It is recommended that for programs on Education for Sustainability to be successful, these “must be holistically integrated into the curriculum and institutional practices” [8], as they would not work solely on the basis of the individual efforts of some educators. In this sense, it is important to analyze from the perspective of the Sociology of Education, how teachers are trained to deal with the topic of sustainability [53].

4.2. Connecting with Nature

From an analysis of the specific activity of educational projects for sustainability, we can deduce that one of the keys to successful implementation that manages to get people involved and raise their awareness lies in carrying out activities in which they participate. This implies the development of an activity that entails experiencing direct contact with reality and with nature. There is a relation between reconnecting people with nature and their subsequent progress towards a greater environmental sensibility. Recent research carried out in primary and secondary schools in Singapore has shown that, “Nature connectedness counts as a crucial predictor of pro-environmental behavior” [54]. Similarly, there have been recent research experiences, in Scotland and Canada amongst others places, which showcase the potential of outdoor education for developing pro-environmental sensibility [55,56]. Although the potential of experiences outside the classroom is recognized, the teaching staff bring up certain problems, such as the time availability and budget limitations, to carrying them out.

It is also important to underscore the age at which this type of activities is carried out. In fact, one of the results of our research shows that working with adolescents provides interesting challenges and opportunities, a finding that is also shown by other studies [54]. Kaplan and Kaplan argue that during adolescence, there is less preference for natural spaces as opposed to more ‘developed’ spaces. They call this period ‘time out’, when there is a loss of interest in things related with nature [57]. On the other hand, Crone and Dahl stress the importance of social and affective research as variables for exploring immersion and for better understanding the opportunities for motivational apprenticeship during adolescence in reference to the subjects covered [58].

4.3. Sustainable Development Goals as a Framework for Education for Sustainability

The results also show that one of the keys to success lies in approaching the topic with a holistic or interdisciplinary view, that is, not treating it as a separate school subject that is understood as ‘environmental education’ or solely in relation to the natural sciences, but instead as something embedded in the curriculum and the study plan of each school subject. In spite of the fact that some schools are already doing this, it continues to pose a challenge, although attention is now being focused on it. It is a question of developing an education in which the concept of sustainability is embedded in a natural way, with education understood as forming a whole. “Schools must teach students about the world we live in, our place in it, and how to sustain and protect the ecosystems that support us all” [59]. Education for sustainability requires an interdisciplinary approach that encourages critical thinking and resolving complex problems, which must be addressed from more than one discipline [60]. Environmental sensibility is generally understood in terms of recycling, sustainable consumption and visits to natural parks, while cultural sustainability is not well known [61]. In this sense, Agenda 2030 of the SDGs provides an opportunity if it is considered as an accessible tool for starting to work on sustainability in a more integral way, since the SDGs provide a framework for integrating all the educational subjects and projects. In this context, it is crucial for the effectiveness of education for sustainability that teachers should receive a specific qualification through the educational offers aligned with the United Nations’ SDGs [46].

5. Conclusions

In the first place, this study showed that key factors for successfully implementing education for sustainability programs are the involvement of the teaching staff, personal motivation and the leadership of the coordinator, although the support of the school authorities is also needed

(complementary focuses). Moreover, the stability of the teaching personnel and their identification with the project are essential. Differences can be established in this respect between public schools and private schools that condition the difficulties of the teaching staff to a certain degree.

The analysis carried out from the perspective of the teaching staff showed that there are different perceptions of the topic depending on their different areas of knowledge, while the prevalent view considered that the topic falls under the scope of the natural sciences. On the other hand, it clearly showed the need to address all the dimensions of sustainability, although there was a problem with integrating contents, above all due to how the departments are structured. Additionally, it has been shown that different approaches can be taken to the problem, for example it can be considered from topics like consumption, philosophy/happiness, etc.

With respect to key educational methodologies, experiential activities outside the classroom are considered to be an opportunity for ensuring the programs' success. The focus on the topic must be a positive one for it to have greater effect. In all the schools studied, environmental education is clearly identified with School Agenda 21, while the support of Ingurugela provides a great opportunity and is a key element for developing the educational programs. Working on the topic of SA21 with secondary school students can pose a challenge (lack of interest) as well as provide an opportunity (capacity for critical argument). With regards to the SDGs, these are still largely unknown to the teaching staff but could provide a good framework for multidisciplinary education.

Finally, as future research that could complement this research, it would be interesting to carry out the same analysis from the perspective of the students and to contrast the perspective of the teaching staff with that of the students, thus obtaining conclusions that reflect this comparison.

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Appendix A Interviewed teachers' profile

School A:

1. Social Science teacher; 35 years of experience as teacher, 22 years in this school.
2. Social Science; 26 years of experience as teacher, 2 years in this school.
3. Physical Education; 31 years of experience as teacher, 18 years in this school.
4. English teacher; 12 years of experience as teacher, 6 months in this school.
5. Natural Science teacher; 12 years of experience as teacher, 6 months in this school.

School B:

6. Natural Science teacher; 32 years of experience as teacher, 4 years in this school, 4 years as School Agenda 21 coordinator.
7. Social Science teacher; 20 years of experience as teacher, 4 years in this school, 3 years as School Agenda 21 coordinator.
8. Pedagogue; 13 years of experience as teacher, 1 years in this school.
9. Mathematics teacher; 3 years in private sector, 24 years of experience as teacher, 5 years in this school.
10. Physical Education teacher; 18 years of experience as teacher, 2 years in this school.
11. Chemistry teacher; 4 years of experience as teacher, 1 years in this school.
12. Technology teacher; 6 years private sector, 2 years of experience as teacher.
13. English teacher; 35 years of experience as teacher, 11 years in this school.
14. Basque Language teacher; 11 years of experience as teacher, 6 months in this school.

School C:

15. Natural Science teacher; 12 years of experience as teacher, always in this school; 2 years as School Agenda 21 coordinator.
16. Basque language teacher; 18 years of experience as teacher, 16 years in this school.
17. Philosophy teacher; 18 years of experience as teacher, always in this school.
18. Mathematics teacher; 18 years of experience as teacher, always in this school.
19. Natural Science teacher; 8 years as university research experience; 16 years of experience as teacher always in this school.
20. History teacher; 10 years of experience as teacher, always in this school.
21. Natural Science teacher; 8 years of experience as teacher, 7 years in this school; 2 years as assistance of the School Agenda 21.

School D:

22. Technology teacher; 10 years in private sector; 1 year as teacher in this school.
23. English teacher; 1 year of experience as teacher, always in this school.
24. Literature teacher; 38 years of experience as teacher, always in this school.
25. English teacher; 24 years of experience as teacher, always in this school.
26. Physical Education teacher; 20 years of experience as teacher, always in this school.
27. Social Science teacher; 11 years of experience as teacher, always in this school.
28. English teacher; 1 year of experience, always in this school.
29. Social Science teacher; 40 years of experience as teacher, 10 of those years as school director, always in this school.

School E:

30. Technology teacher; 10 years in private sector, 7 years of experience as teacher, always in this school.
31. Literature teacher; 16 years of experience as teacher, always in this school.
32. Philosophy teacher; 9 years of experience as teacher, always in this school.
33. Art Teacher; 20 years of experience as teacher, always in this school.
34. Physical Education and Religion teacher; 6 years of experience as teacher, always in this school.
35. English teacher; 15 years of experience as teacher, always in this school.
36. Social Science teacher; 22 years of experience as teacher, always in this school.
37. Natural Science teacher; 24 years of experience as teacher, always in this school and 14 years as School Agenda 21 coordinator.
38. School director; 32 years of experience as teacher; 13 years as teacher and 19 years as school director.

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Article

Sociological Importance and Validation of a Questionnaire for the Sustainability of Personal Learning Environments (PLE) in 8th Grade Students of the Biobío Region in Chile

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Abstract: Contemporary society is going through a cultural transition that leads to new conceptions about the ways in which human beings organize socially and communicate. This process of deep social and cultural transformations is characterized by a technological disruption, in which virtuality forms a new dimension that behaves as an extension of human intelligence. This new form of human interaction impacts on the social imagination, demanding one to rethink social and educational paradigms for the two-dimensional citizen. In this context, this research article describes the sociological importance and the process of social adaptation of users to a personal learning environment (PLE). It includes the validation process of an instrument for the study of the PLE of 8th grade students belonging to 15 schools in the Biobío Region of Chile. A PLE is a frame of reference that can help to understand how two-dimensional citizens socially adapt and influence the sustainability of local and global systems. The validation method for this instrument considered four stages: i) Expert judgment: considering the opinions of six educators and experts in information and communication technologies (ICT); ii) a pilot test: that included a non-probabilistic sample of 472 subjects; iii) a principal components analysis (PCA); and iv) a confirmatory factor analysis (CFA). The Questionnaire on Work Habits and Learning for Professional Futures and the Context Questionnaire SIMCE TIC were used as a reference. When performing a psychometric analysis, a Cronbach alpha coefficient of 0.89 was obtained. This confirms that the adaptation of the instrument is good. The results of the dimensional analysis help us define a structure for the new instrument considering three components that explain 55% of the total variance. The results of the confirmatory factor analysis showed adjustment indexes that support the theoretical model proposed for the PLE study. In conclusion, the instrument was composed of three latent variables: Open self-regulated learning (OSRL) with eight questions, information management (IM) with four questions, and creation and transfer of knowledge (CTK) with four questions.

Keywords: validation; questionnaire; personal learning environment; sociology of education

1. Introduction

We are living through a cultural transition characterized by the emergence of information and communication technologies (ICT). There is a social importance related to the role of technologies in the behavior of citizens. The sociological change is important when there are two-dimensional performances, i.e., performed in physical spaces and through digital interactions [1–7]. The trends of social change are conformed to the technological disruption, because “the technologies and the user environment are constructed in the same process” [8].

Technologies such as data mining, artificial intelligence, and mass open online courses (MOOCs) are affecting the way people understand knowledge [9].

The concept of a two-dimensional citizen refers to the double face-to-face and virtual dimension of postmodern subjects. They are exposed to the demands of technological disruption. Postmodern citizens solve problems by using the time and space categories of modernity, and at the same time, they communicate, relate, manage information, and manage knowledge in virtual environments. This implies that they develop a unique cultural identity as regards the human group to which they belong, as well as a global identity, at the level of culture on a human scale, which leads them to relate to other people or institutions in real spaces and virtual spaces. What is involved is not only the communicational aspect, but is a profound change of identity.

The functioning of institutions and interpersonal relationships is also changing. Two-dimensional citizens are projected in the near future as a phenomenon of technological disruption. They live in intelligent cities and communicate on a global level. As this social trend grows, new needs, associated with the new individual and his/her organizational performance, emerge. However, we observe that the education system is not explicitly incorporating these changes into the curriculum. There is a tendency to teach confined to the epistemological limits of time and space, these being the modern dimensions of knowledge. This shows that the new complexities of learning are still not identified and the difference between being a consumer of information and being a knowledge manager cannot yet be recognized. In these dynamics, unprecedented in human history, the two-dimensional identity of the citizen is configured, which simultaneously performs in the space of places and in the space of information flows [2], without necessarily being able to become a self-regulated manager of their apprenticeships, maintaining very high levels of intellectual dependence on those who teach them. It is necessary to rethink society and education, in order to reconceptualize emerging models of social, educational, and cultural sustainable behavior so that they allow for the analysis and systematization of these two-dimensional realities.

This scenario of transition, which affects the cultural singularities of human groups as they necessarily have to be linked to a global dimension of culture on a human scale, requires a new pyramid of needs as a frame of reference to help understand how the human being, in its new bi-dimensional condition, can contribute to the sustainable development of its local and global environment. This requires a new sociological conceptualization, since cultural processes such as transculturation, acculturation, and endoculturation have become more dynamic. We observe that transculturation shows a more intense communicational contact between human groups than in previous historical periods, transferring cultural features from a singular human group to other cultural groups. In the acculturation process, there is a tendency towards the loss of cultural identity elements and with regards to endoculturation we see an attempt to reaffirm the authentic identity of each cultural group [10].

Bronfenbrenner [11] states that we move within different systems: The microsystem, mesosystem, exosystem, and macrosystem. A two-dimensional citizen, mediated by technologies throughout his/her personal learning environment (PLE), could adapt to the conditions of each system (physical space and virtual space) and extend his/her influence to the social environment with which he interacts, as shown in Figure 1.

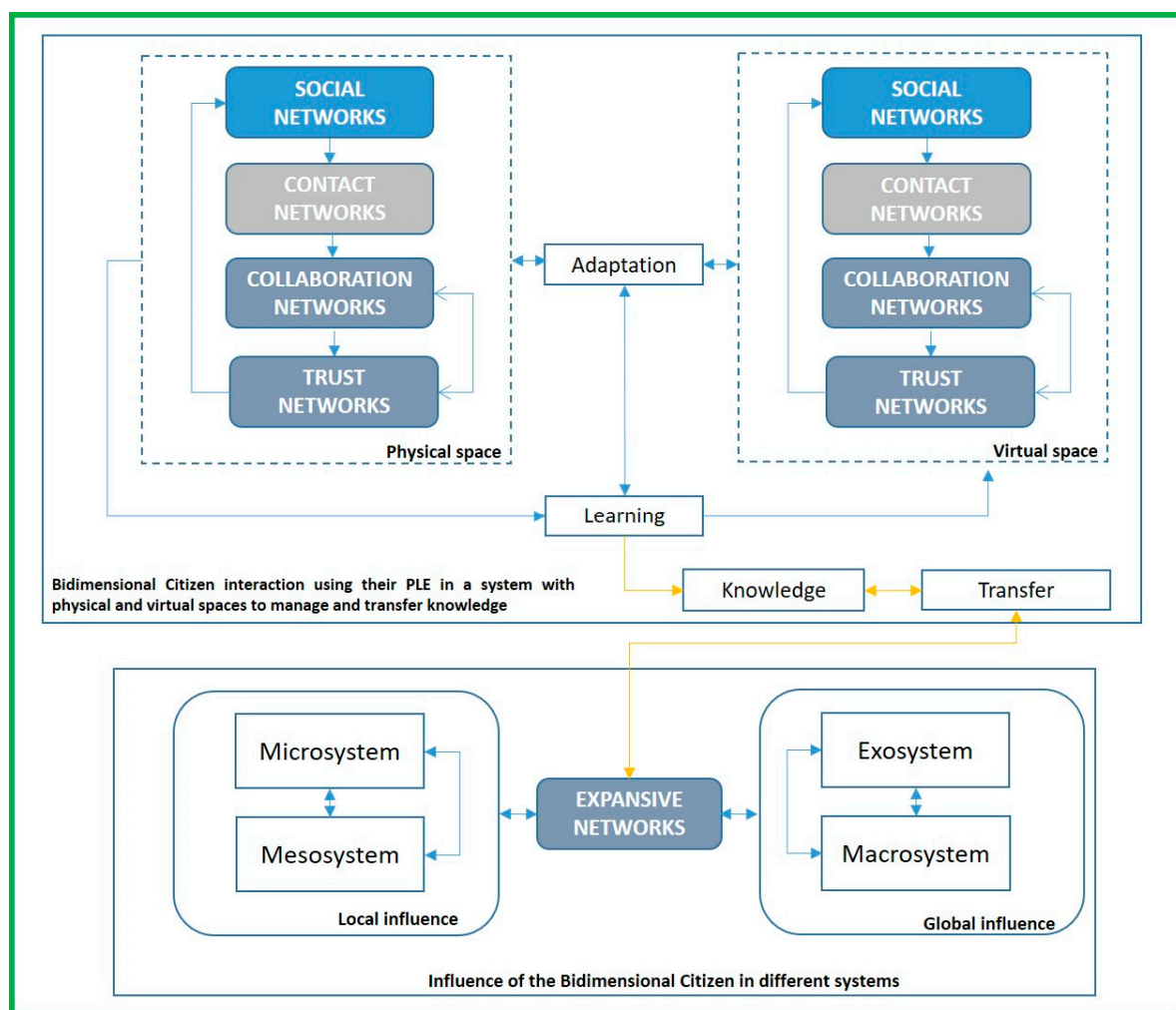


Figure 1. Representation of the two-dimensional citizen in interaction with his/her personal learning environment (PLE) (Source: Prepared by the authors based on Bronfenbrenner [11] and the 5R Model [12]).

The interesting thing about this representation is that the educational system remains only as an additional system of learning experiences. The school ceases to be the exclusive center of learning, since in the mixed reality (real + virtual) the different systems complement each other to generate learning.

This context of change provides us with new ways of thinking about society, education, the way in which information is accessed, and how knowledge is created and transferred [9,13–17]. A concept that has proliferated in international research and helps us to address this challenge is the personal learning environment.

The PLE is more of a strategy or approach than a particular tool. It is created by the individuals themselves, promoting their autonomous and interconnected learning in a digital ecosystem composed of means, tools, and services [18]. In this way, open, formal and informal learning is promoted, decentralized from the rigidity of the training institutions [19]. This PLE can be defined as the "set of tools, sources of information, connections and activities that a person uses assiduously to learn" [20]. Its basic structure is made up of three elements associated with three cognitive processes: tools and reading strategies (to access information sources), tools and strategies for reflection (environments or services where information can be transformed), tools and relationship strategies (environments to interact with other people from whom it is possible to learn), as stated by Attwell [21].

The importance and international relevance of the PLE has converged in a large number of research projects. Gallego-Arrufat and Chaves-Barboza [22] conducted a review of empirical research

published since 2009, concluding that some studies are grouped around the theoretical and pedagogical justification of the PLE [22–27]. They state that around the concept it is possible to find two lines of significance that are useful for categorizing empirical research. A limited one, which deals with the technological tools of the PLE in order to access new sources of knowledge [28–30], and a wide one, which promotes the PLE as a great economic, political, physiological, intellectual, social, physical, and virtual toolbox for learning [31,32].

In summary, research tends to emphasize that the PLE puts the individuals as the leading characters of their own learning process in bi-dimensional contexts [22,24,33], enabling them to assume new roles, setting their own goals, choosing and organizing their content and technological tools, interacting with friends, family, or teachers, and reflecting on their learning objectives [34–38] regardless of geographic location [23,25]. However, the integration of technology does not necessarily ensure a greater control over learning [34], nor over the appropriation of part of the individual about his/her role as a citizen, whose actions impact on him, in his/her local and global environment.

More empirical research is needed that associates the PLE with the improvement of learning [22] in two-dimensional contexts; and with its contribution as a systemic framework of mobility between the two-dimensional citizen and the diverse systems that influence his/her way of acting before the world.

Despite the international evidence, in Chile there is little research on the use of the PLE in both primary and secondary education or higher education. The only empirical reference found so far was a study carried out by the Ministry of Education in the SIMCE TIC (National Measurement System of ICT Competences) [39] performed in 2013 involving 11,185 second-grade students, belonging to 492 state-run, semi-subsidized, and private schools. The results revealed that only 1.8% of these demonstrated an advanced level of performance in the use of ICT for learning in four dimensions (information, communication, ethics and social impact, functional use of ICT).

In this context, the main objective of this paper is to validate an instrument to determinate the dimensions that should be included in a PLE oriented to students and their environment, in an effort to contribute to the contextualization of the educational challenges of the two-dimensional citizen and his/her influence in different physical and virtual environments.

2. Materials and Methods

2.1. Research Design

The research was carried out through a non-experimental, descriptive, and transactional study [40,41] during the second semester of the academic year in 2017. The researchers did not have direct control over the analyzed variables that constituted the first version of the instrument.

2.2. Participants

The selection of subjects involved in the study was made through a non-probabilistic convenience sampling [42]. A non-random sample composed for 472 Chilean 8th grade volunteer students from both primary state-run and private schools was used. The average age of the students who participated in the study was 13 years. The schools, which are located in Concepción, previously authorized the application of the instrument. This was applied to all 8th grade students who were present.

Regarding the size of the sample, there are two positions as regards carrying out a principal components analysis (PCA), according to Lloret-Segura, Ferreres-Traver, Hernández-Baeza, and Tomás-Marco [43]: i) Those that suggest a minimum size (N); and ii) those that define a proportion of people by item (N/p). For the selection of the sample, the recommendations of the authors that suggest a proportion of people per item were followed. These can vary between 5 to 15 subjects per question, with a size of no less than 100 people [44–46].

2.3. The Questionnaire

The first version of this instrument was developed taking into consideration two theoretical backgrounds: The Questionnaire on Work Habits and Learning for Professional Futures and the SIMCE TIC. The first one was developed in the context of the CAPPLE project (Competencies for Lifelong Learning based on the use of PLEs), which seeks to study how the personal learning environments of future Spanish university professionals will be [47]. The author carried out the validation of this instrument through three methods: An expert judgment, a round of cognitive interviews, and a pilot test. The final version of this instrument was made up of 48 questions and four dimensions: Self-perception ($\alpha = 0.863$); information management ($\alpha = 0.946$); management of the learning process ($\alpha = 0.885$); and communication ($\alpha = 0.772$).

The second theoretical background was the SIMCE TIC, which is a national assessment of ICT skills for learning applied by the Ministry of Education in Chile [39]. Once the instrument was constructed, the language was adapted and the questions were regrouped.

The first version of the instrument was made up of five dimensions, fourteen categories, and thirty questions. Twenty questions, two dimensions, and eleven categories came from the Questionnaire on Work Habits and Learning for Professional Futures and twelve questions were adapted from the SIMCE TIC questionnaire. Five new questions were added: Q24, Q28, Q13, Q19, and Q23; three dimensions were added: Access information, manage information, and create knowledge; and also three categories were added: Connectivity, digital identity, and transfer (see Table 1).

Table 1. Dimensions, categories, and questions of the first version of the Questionnaire for the study of personal learning environments.

Dimension	Category	Questions
Access to information	Connectivity	Q24, Q27, Q28
	Information search	Q4, Q8, Q18
Information management	Organization of the information	Q1, Q11, Q14
	Information processing	Q9
Create knowledge	Ethical processing of the information	Q12
	Knowledge creation	Q6, Q15
	Team work	Q7
Communicate	Digital identity	Q13
	Knowledge transfer	Q5, Q19
	Intrinsic motivation	Q2, Q16
Management of the learning process	Critical thinking	Q10, Q21
	Open learning	Q23, Q25, Q26, Q29, Q30
	Problem resolution	Q22
	Regulation and planning of learning	Q3, Q17, Q20

The operationalization of the variables to be evaluated in dimensions and indicators of the variable serves to determine with precision the points on which to obtain information through the corresponding items of the questionnaire. The first dimension access to information corresponds to the devices and strategies that a person uses to access information sources. The second dimension corresponds to manage information, which refers to the devices and strategies that a person uses to find and organize information. The third dimension is to create knowledge, which is associated with the devices and strategies that a person uses to process data and transfer information. The fourth dimension is to communicate, related to the devices and strategies a person uses to critically analyze information, learn in different contexts, solve problems, and plan their learning; and the fifth dimension, management of the learning processes, refers to the devices and strategies a person possesses for team working, managing his/her digital identity and transferring knowledge.

2.3.1. Validation of the Instrument

The validation method considered four processes: i) The validation of the construct through expert judgment, ii) the pilot test: that included a non-probabilistic sample of 472 subjects; iii) the principal components analysis; and iv) the confirmatory factor analysis (CFA).

Process 1. Expert Judgement

According to Crocker and Algina [48], expert judgment allows the validation of a research instrument, being a useful procedure to realize its content validity [49]. As a result of the difficulty of having all the experts at the same time, expert judgment was performed using the method of individual aggregates. A group of six experts in education and information technology was selected in Chile. Each one received the validation format of the instrument, consisting of a table for each question, identifying the dimension to which they belonged. These experts independently assessed the importance of each questions, according to three criteria: i) Uniqueness of language, to validate that the question was clearly written and does not lead to more than one interpretation, answering Yes or No; ii) relevance of the question with respect to the dimension in which it has been raised, answering Yes or No; iii) importance of each one of the items of the questionnaire, answering a Lickert scale from 1 to 5, where 1 was the Minimum importance, and 5 the Maximum importance. In addition, there was a space for observations so that the evaluators could write the comments they deemed pertinent.

On the basis of the suggestions and comments, nine questions were eliminated from it: Q2, Q3, Q5, Q8, Q11, Q12, Q15, Q18, and Q21, the wording of some items was modified, and some of the questions were regrouped (see Table 2).

Table 2. Regrouped questions based on expert judgment.

Regrouped Questions	New Questions
Q2 - Q3	Q2
Q5-Q8-Q15	Q11
Q11-Q12-18	Q5
Q21	Q10

The problem solving category was eliminated, and the information processing and ethical processing of information categories were merged into a new category called information processing. The new version of the instrument, used as a pilot test, was finally composed of 5 dimensions, 21 questions, distributed in 12 categories as can be seen in Table 3.

Table 3. Dimensions, categories, and questions of the pilot version of the instrument.

Dimension	Category	Questions
Access to information	Connectivity	Q14, Q19, Q20
	Information search	Q2
Manage information	Organization of the information	Q1
	Information processing	Q5, Q8
Create knowledge	Knowledge creation	Q3
	Team work	Q4
Communicate	Digital identity	Q7
	Knowledge transfer	Q11
	Intrinsic motivation	Q9
Management of the learning process	Critical thinking	Q6
	Open learning	Q15, Q16, Q17, 18, Q21
	Regulation and planning of learning	Q10, Q12, Q13

Process 2. Pilot Test

A pilot test was carried out with 472 8th graders, belonging to state-run, subsidized, and private schools in Concepción, Chile. The participants were those students who offered their consent as well

as their parents' or tutors'. In that way the confidentiality of the information was guaranteed. The data collection was carried out during the second semester in 2017 and it was applied as a printed document. A brief explanation of the questionnaire and the process was given to the students before they started answering. An example of the questions was provided in order to help them understand how they should answer the questionnaire. The application time was approximately forty-five minutes.

2.3.2. Statistic Analysis

To carry out the evaluation of the elements that make up the instrument, internal consistency measures were calculated using the Cronbach's alpha coefficient and correlation, through the Pearson correlation coefficient. In order to determine if a PCA was possible, the Barlett's sphericity test and the sample adequacy measure (SAM) were used. The principal components analysis was performed and an oblique rotation using the Oblimin technique. The results obtained in this test were only applied to the eighteen questions that had variables of scalar type. For the confirmatory factor analysis, the maximum likelihood (ML) method was used and five indices were considered: χ^2 (Chi square), RMSEA (mean square error of approximation), CFI (comparative adjustment index), TLI (Tucker Lewis index), and SRMR (root mean square residual standardization). The analyses were performed with the statistical software R, version 3.5.1.

3. Results

3.1. Principal Components Analysis

The first exploration of the data shows that some students did not answer all the questions and they left some empty items (without answering). Therefore, the valid sample consists of 439 subjects, as shown in Table 4. Regarding sex, it could be observed that the proportions are very similar between boys (49%) and girls (51%).

Table 4. Valid sample of participants.

Type of School	Boys	Girls	Total
Private and state-subsidized (PSS)	50	48	98
State-subsidized (SS)	166	175	341
TOTAL	216	223	439

The answers were analyzed according to a Lickert scale from 1 to 7, where 1 was Totally Disagree, and 7 the Totally Agree (Table 5).

Table 5. Types of answers.

Meaning	Abbreviation	Answer
Totally Disagree	TD	1
Strongly Disagree	SD	2
Disagree	D	3
Undecided	UD	4
Agree	A	5
Strongly Agree	SA	6
Totally Agree	TA	7

The reliability analysis of the instrument yielded a Cronbach's alpha coefficient =0.89. A Pearson correlation matrix was used to analyze the existing collinearity between the variables. A $p < 0.01$ value was obtained when applying the determinant of the matrix. This suggests a high level of collinearity in the set of variables of the correlation matrix. For the multicollinearity assumptions, the Bartlett sphericity test was used, which yielded a p value of < 0.0001 ; and the sample adequacy measure

Kaiser–Meyer–Olkin (KMO) test yielded a value of 0.92. According to the results obtained, a principal components analysis was carried out. In order to extract the components, we analyzed two criteria: The parallel analysis (using the function `fa.parallel`, in the R Studio software), which yielded the suggestion of three components and then we complemented it with the variance percentage criterion that refers to the principal components analysis, taking the variance explained by the three components suggested in the previous analysis. The three components explained 55% of the total variance. Table 6 summarizes the results of the first rotation, using oblique rotation.

Table 6. Matrix of rotated components for the first analysis.

Questions	Components		
	1	2	3
Item_17	0.83		
Item_16	0.82		
Item_18	0.75		
Item_15	0.68		
Item_14	0.58		
Item_11	0.51	0.43	
Item_9	0.50		0.32
Item_12	0.50		
Item_13	0.36	0.33	
Item_4		0.86	
Item_3		0.81	
Item_5		0.56	
Item_6		0.46	
Item_2		0.40	0.34
Item_7			0.86
Item_10			0.51
Item_8			0.50
Item_1			0.45

Items 2 and 13 scored similarly in more than one dimension, influencing the total variance explained. It was decided to carry out a new rotation of components excluding the mentioned items. The result is presented in Table 7.

Table 7. Matrix of rotated components for the second analysis.

Questions	Components		
	1	2	3
Item_17	0.83		
Item_16	0.81		
Item_18	0.75		
Item_15	0.68		
Item_14	0.57		
Item_9	0.50		0.32
Item_11	0.49	0.39	
Item_12	0.49		
Item_4		0.84	
Item_3		0.80	
Item_5		0.59	
Item_6		0.47	
Item_7			0.86
Item_10			0.52
Item_8Item_1			0.500.46

On the basis of the results obtained in the validation process, the final version of the instrument was modified and two questions (Q2 and Q13), three dimensions (access to information,

communication, management of the learning process), and two categories (connectivity, critical thinking) were eliminated.

The other categories were regrouped into three dimensions. The 16 items left were distributed into three components as follows: Component 1 called "open self-regulate learning" (OSRL) with eight questions; Component 2 called "information management" (IM), with four questions; and Component 3, identified as "creation and transfer of knowledge" (CTK), with four questions. The OSRL dimension refers to the devices and strategies that motivate a person to learn and transfer knowledge in bi-dimensional contexts.

The analysis of the Cronbach's alpha of each of these components yielded an alpha =0.87 for the OSRL component; an alpha =0.86 for the IM component; and an alpha =0.70 for the CTK component. Out of the 19 questions available in the final version of the questionnaire, 16 correspond to a scale of seven levels, one corresponds to frequency, one to Yes/No and I do not know answer; and a question with answers of the type I learned: alone/with my teachers/with my family/with my friends/I do not know. The final structure composed of three validated dimensions, which explain 55% of the total variance is presented in Table 8.

Table 8. Components, categories, and questions (final version of the instrument).

Dimension	Category	Questions
Open self-regulated learning	Open learning	Q12, Q14, Q15, Q16
	Regulation and planning of learning	Q11, Q13
	Intrinsic motivation	Q8
	Transfer knowledge	Q10
Information management	Search for information	Q4, Q5
	Information processing	Q2
	Teamwork	Q3
Creation and transfer of knowledge	Knowledge creation	Q7
	Organization of information	Q1
	Digital identity	Q6
	Feedback	Q9

Regarding the correlations between the components, a weak positive correlation was found between OSRL and IM ($r_s = 0.42, p < 0.001$); between OSRL and CTK ($r_s = 0.48, p < 0.001$) and a moderate positive correlation between IM and CTK ($r_s = 0.51, p < 0.001$).

3.2. Confirmatory Factor Analysis

To corroborate the results of the psychometric properties obtained in the principal components analysis, a confirmatory factor analysis was carried out, which allows one to represent the relations of the latent variables with their observed or indicator variables [50,51], and confirm that all the questions fit the proposed model [52–54].

The analyzed model consists of three components: Open self-regulated learning (OSRL), information management (IM), creation and transfer of knowledge (CTK) that influence a group of observed variables, measured through the questions of a scale [55].

Using the Lavaan package [56], from the statistical software R, we can represent the model to be analyzed in the following way:

$$\begin{aligned}
 \text{Model} &< \sim \text{OSRL} = \sim \text{Q08} + \text{Q10} + \text{Q11} + \text{Q12} + \text{Q13} + \text{Q14} + \text{Q15} + \text{Q16} \\
 &\text{IM} = \sim \text{Q02} + \text{Q03} + \text{Q04} + \text{Q05} \\
 &\text{CTK} = \sim \text{Q01} + \text{Q06} + \text{Q07} + \text{Q09} \\
 &\text{OSRL} \sim \sim \text{IM} + \text{CTK} \\
 &\text{IM} \sim \sim \text{CTK}
 \end{aligned}$$

where each command is explained as follows:

= ~ allows for the inclusion of regression relations that define a latent variable; ~ relationship between two observable variables; and ~~ that specifies the relationships of variance and covariance [51].

To evaluate the goodness of fit of the model, the maximum likelihood (ML) method was used and five indices were considered (Table 9). The χ^2 statistic (square Chi), which allows us to identify the best possible fit between the compared matrices [57]. A value of 342.377 ($p = 0.000$) was obtained, with degrees of freedom (DF) =101. Although the value of p is less than 0.05 (the model and the data do not fit each other), it is suggested not to consider this statistic because of its sensitivity when used in samples with more than two hundred subjects [51,58–60].

Table 9. Indexes of goodness of fit of the model.

Indexes of Goodness of Fit of the Model	χ^2	Df	p	CFI	TLI	RMSEA	SRMR
Model	342.377	101	0.000	0.92	0.91	0.07	0.04

The other indicators used are less sensitive to differences in the sample size. The mean square error of approximation (RMSEA) obtained was = 0.07, considered to be within the acceptable range as an adequate adjustment of the model [51,61–63]. The comparative adjustment index (CFI), which compares the proposed model with a null alternative model [62,64], was 0.91, which means that the model for measuring the questionnaire and the structure of the data reproduces at least 90% of the covariance, considered as the minimum acceptable value [51,63,65]. The SRMR index (standardized version of the RMSR index) obtained a value of 0.04, indicating a good adjustment of the model [51,55]. Finally, the non-regulated adjustment inside (TLI) was considered, whose value was 0.91, considered as a good adjustment of the model [66].

4. Conclusions

The incorporation of the virtual dimension to human activities is causing a cultural transition, characterized by a new generation of citizens that develop both in physical and virtual environments; these were called ‘space of the flows’ by Castells [2] or the ‘resonant interval’ by McLuhan and Powers [3].

The digital citizens of the cultural transition are exposed to profound changes in their human behavior. These tendencies are associated with the technological disruption that we experience and which characterize the so-called fourth industrial revolution, provoking new needs and demanding redefinitions of roles and new scenarios in education. In the near future, the new two-dimensional citizens will overcome the limits of time and space of the traditional modern classroom, actively incorporating cyberspace into more autonomous and self-regulated learning processes.

It is a complex redefinition of a new subject that in its identity needs to be analyzed through three important conceptions: A new human condition; how to access, create, and share knowledge; and the recognition of the new essence of an individual with emerging needs.

During the last century, Maslow [67] was able to recognise the needs of the subject as an individual and its relationship with society, but from a vision located in the modern categories of analysis (time and space). However, new needs have been incorporated, based on a mixed reality that involves the real world and the virtual world, which come from the process of a growing technologization of people, society, and culture. To the extent that a greater number of subjects, understood from the technological perspective as excessively complex and probabilistic natural systems, are related to other people or institutions using automated means of communication, these new communicative interactions are produced in complex patterns of decisions and control for achievement of the purposes. These processes, typical of postmodernity, require new skills and the growing satisfaction of new needs

to shape the profile of a two-dimensional citizen. Their levels of complexity and influence increase from the subjects, from the local culture towards the global culture.

These questions pose challenges for education in this cultural transition. It is possible to confirm, according to different authors, that the formal education system continues to be decontextualized before the needs of the subjects in two-dimensional contexts [6,7,9,17]. Incompatibilities arise between the society that learns with the new technologies and the one that learns exclusively with the traditional methods of a school centered in the teacher, in standardized evaluations, and knowledge located only within the limits of the classroom [9,18], without addressing the specific needs of the cultural transition.

In this context, this study describes the process of social adaptation of two-dimensional citizens and the validation of an instrument used with 8th grade students in the Biobío region of Chile. This work will contribute to the study of PLE in similar contexts. A PLE is a frame of reference that can help to understand how two-dimensional citizens adapt in their social interactions and influence the sustainability of local and global systems. Knowing more about students' PLE will allow teachers in the education system to design training routes that prepare them with knowledge, skills, attitudes, and values to contribute to a vision of sustainable global development [10].

It also provides an instrument to build a reconceptualization of educational sociology, by measuring the new roles of students, preferably engaging with the concepts of open learning, information management, and the creation and transfer of knowledge. [8,68].

A final version made up of 18 questions was obtained based on the work of Prendez-Espinoza et al. [47] and the SIMCE TIC context questionnaire [39]. The questions were grouped into three main components (OSRL, IM, CKT) that explain 55% of the total variance. The validation process included expert judgment, a pilot sample, a principal components analysis, and a confirmatory factor analysis. For the principal components analysis, two psychometric tests were performed: The Bartlett sphericity test (to ensure that the correlation matrix is not the same as the inverse or identity matrix), which yielded a value $p < 0.0001$ (significant); and the measure of sample adequacy, known as the Kaiser–Meyer–Olkin test (KMO), whose value was 0.92. The total alpha of the instrument was =0.89. To evaluate the fit of the proposed model, five goodness-of-fit indices were used: χ^2 (Chi square), RMSEA, CFI, TLI, and SRMR. The results were favorable, since it was possible to obtain four acceptable values in the indices described, except in the case of χ^2 .

Despite the international relevance of the PLE concept, there is little research in Chile and Latin America [68,69] that studies in depth the characteristics and students' perception of their personal learning environments. With this article we hope to contribute with an instrument that can be used by other researchers in different contexts in order to validate the final components associated with PLE described in this incipient research line and to examine in detail the results obtained in this study.

Finally, the authors suggest the final validated version of the instrument that could be used in different contexts and with different groups of people that need to be analyzed in their bi-dimensional interaction.

5. Limitations

It is possible that carrying out a PCA and a CFA could eventually lead to an over-adaptation of the factors [70,71]. Future studies should try to replicate the factor structure found. Likewise, the possibility of collecting new data will allow establishing a nomological network in order to test the new scale with theoretically related constructs, such as success in learning.

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Article

Young Romanians' Transition from School to Work in a Path Dependence Context

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Abstract: For the past 25 years, Romania crossed a contradictory evolution between the social–educational and economic aspects. From the inflexible educational system of the totalitarian regime, when all graduates from different levels of education immediately received a job (to avoid unemployment—a phenomenon that the communist authorities did not tolerate), there was a transition to an educational system marked by frequent structural and methodological changes and by an increasing gap between the educational offer and the real necessities of the labor market. In this context, the aim of this paper was to analyze, in the light of the sociology of education, the difficulties met by the new generations that enter the labor market after following a previously established educational model, often intended to be changed according to European sociological principles, but with deeply rooted mentalities and structure, actually difficult to alter. The ability to adapt to the new socio-economic context and to adjust educational programs to the new labor market requirements, in a strong correlation with the European policies, is constantly taken into account by interpreting the results in the spirit of the sociology of education and sustainable development.

Keywords: educational system; sustainability; labor market; post-communist era

1. Introduction

Investments in education cause the human capital to develop, bringing about a wide range of social advantages, such as improved health state, and lower criminality rate and dependence on social allowances. Therefore, it must be regarded as a long-term investment which results in future income and contributes to the development of the society—the higher the state's spending on education is, the lower the inequity level will be in the future [1]. The objective of ensuring a functional relationship between the education system and the labor market cannot elude sustainability, a key concept in social change and in the sociology of education [2]. Education plays a significant part in achieving social and economic desiderata, at the same time contributing to economic equity and growth [3], the benefits being on short, medium, and long term, especially when it comes to higher education—73% of those who only completed secondary education hardly reach the average salary threshold, while only 27% of higher-education graduates find themselves in this situation [4]. From the point of view of the sociology of education, education and professional training gained increasing importance in all European countries, this statement being supported by the extended duration of compulsory schooling, by the increased spending on education, and a permanent adjustment of the educational offer to the economy demands. Education provides, most of the time, easier access to the labor market. A sustainable economy, based on knowledge, involves highly skilled jobs, thus improving the capacity of human resources, which means that the modernization and consolidation of the education system represents a priority for all European countries. The main explanation resides in the fact that the

authorities became aware of the strong relationship between sustainable economic development and substantial investments in labor force, and between improved wealth and investments in human capital [5,6], as main topics in the sociology of education field. Starting from the complex relationship between education and labor, the former is one of the most important strategic points of concern for the European Union (EU) Member States, which designed “Education and Training 2020”, establishing some guiding objectives to be fulfilled by 2020: at least 15% of adults involved in lifelong learning; at least 40% of adults aged 30–34 having a tertiary education diploma; less than 10% early leavers from school and training; at least 75% employment rate for 20–64-year-olds [7].

According to Reference [8], these advantages can be of two types: market and non-market benefits, each of them manifested both at the private (decreased unemployment, larger earnings and work market flexibility, better health state and quality of children education) and social level (higher productivity, lower predisposition to criminality and infectious diseases). Consequently, a coherent higher education system represents a stimulus for better economic performance, alleviating inequity and ensuring a more equitable distribution of income and wealth [9], since education is converted into increased labor productivity by accumulating knowledge and skills, and by facilitating technological progress and innovation [10,11]. Educational institutions, as places where future citizens are trained, can play a key role in addressing the challenges of sustainable education [12], its objectives being to create a balance between the economic, social, and environmental dimensions [11]. The Sociology of Education Research Committee (RC04) selected and examined multiple aspects of the education–society relationship [13], the school-to-work transition being one of them. Education sociologists are interested in the patterns of younger graduates’ entry into the labor market and their effectiveness, highlighting the generally low support that young people receive to access jobs that are in line with their training and the fact that under-employment of well-trained young people is a problem encountered in all types of economies.

On the other hand, there is scientific “concern” as regards the fact that the purpose of increasing educational equality opportunities might have a negative impact on educational quality [14]. At the same time, the relationship between education and labor market should not be eluded, in the sense that the requirements of the latter should harmoniously overlap with the educational system from the quantitative and qualitative point of view, so that the young work force might get optimally integrated. This could be achieved by strengthening the cooperation between the supply and demand for labor, which could be enabled by a better collaboration between universities and economic decision-makers [15–17].

From another standpoint, we do not speak only about education in general, but also about the demand of developing a sustainable educational system, which stands in need of meeting three decisive criteria: lack of wasted talents, renewed energy for learning, and fostering students’ needs in order to enable them to shape the skills that are of uttermost importance for their future lives and for the future of our planet [18]. The necessity of creating and promoting a new curriculum at the beginning of the third millennium was motivated by the multiple changes that took place so far at different levels, ultimately endangering the Earth itself [19]. A sustainable education paradigm does not only rely on a traditional knowledge foundation, but it integrates new competencies, such as synthesis, integration, and appreciation of complex systems [20]. In this context, it is obvious that, in order to secure the future of the world, education must turn its face to sustainability, changing from transmissive to transformative learning, in order to better understand the ecological worldview and further contribute to ecologically sustainable societies [21]. According to the United Nations Educational, Scientific, and Cultural Organization (UNESCO) documents [22] quoted by Reference [23], Education for Sustainable Development involves eight important key competencies for sustainability, including systems thinking competency, strategic competency, collaboration or the very important integrated problem-solving competency, which is the ability to develop viable, inclusive, and equitable options that promote sustainable development. UNESCO demonstrates that education is vital to promoting sustainable development goals (SDGs) and sustainability skills and proposes 17 such SDGs,

among which we can mention, in close connection with the topic of this article, SDG 4, on quality education, the provision of inclusive and equitable quality education and the promotion of lifelong learning opportunities for all, as well as SDG 8, on decent work and growth, promoting inclusive and sustainable economic growth, full and productive employment, and decent work for all [22,24].

In this regard, Shohel and Howes [25] grasped the relationship between education and sustainable development, designing three models meant to explain the role of education in arising aware of the human–nature system, in supporting the health of the planet we inhabit and in cultivating responsibility for the present and future world. Thus, the authors show that there is an education *about* sustainable development (which provides awareness and generates attitude and behavior changes), an education *for* sustainable development (which focuses on actions and skills acquired and practiced throughout one's life), and a critical education *toward* sustainable development (which emphasizes the importance of knowledge production through critical actions and developing a critical spirit). In the long run, the social goal of education is geared toward building and maintaining a sustainable future.

Precisely starting from the manifold benefits that education brings both at the individual and society level, the access to education stands out as a very important issue, school dropouts often triggering long-term negative consequences [26]. It is generally considered that, most often, the main causes that obstruct the access to education are the type of residential area one lives in (rural environment is more vulnerable from this point of view [27,28] and stereotypes [29], but most of all poverty. Human capital (parents' education, salary, and employment situation) and physical capital at home (material resources used for educational purposes) are positively associated with educational attainment [30]. Within the sociology of education field, school is universally recognized as the main tool for training tomorrow's citizens; thus, each country should invest funds and allocate the best human resources to this system. As regards educational sustainability, the success of this process depends on all parties involved: students (who benefit from the educational process), parents (who operate a selection between different schools, but also greatly contribute to their children's education), teachers (who define the strategy and guidelines but also put them into practice), and, last but not least, the local community (which supports the system by providing funds and benefits from an increasing overall educational level) [31]. A fast school-to-work transition ensures a successful integration into the work market. Nevertheless, there are certain elements that may intervene in this process: individual characteristics, the general economic and demographic situation, labor market institutions and regulation, education and training systems, and the mitigating effect of welfare regimes [32].

School-to-work transition is regarded by J. Perron et al. [33] as a process comprising not only the job search activity itself but also the frustrations that result from the constraints of finding work. Along the pathway toward finding their place on the labor market, people engage themselves in causal attribution analyses meant to make them integrate both the successes and failures they experienced throughout this process. The three constructs of the theory of action (attitude, social norms, and perceived control) are inter-correlated, positively predicting the level of intention, which is further connected to the process of job search, including the objective and subjective quality of the first job (Figure 1). According to economics literature [34], education and school years are attributes that validate the human capital theory, according to which education contributes to a better remuneration of one's labor, the profitability of education, thus, proving to be positive and high. Education and diplomas play the part of a signal which is sent to the employer, indicating a certain capacity level the individual can have. This is beneficial for both parties—the graduate sells his/her services at a certain price (wages), and the employer is generally willing to pay higher wages to hire better laborers (wage signal).

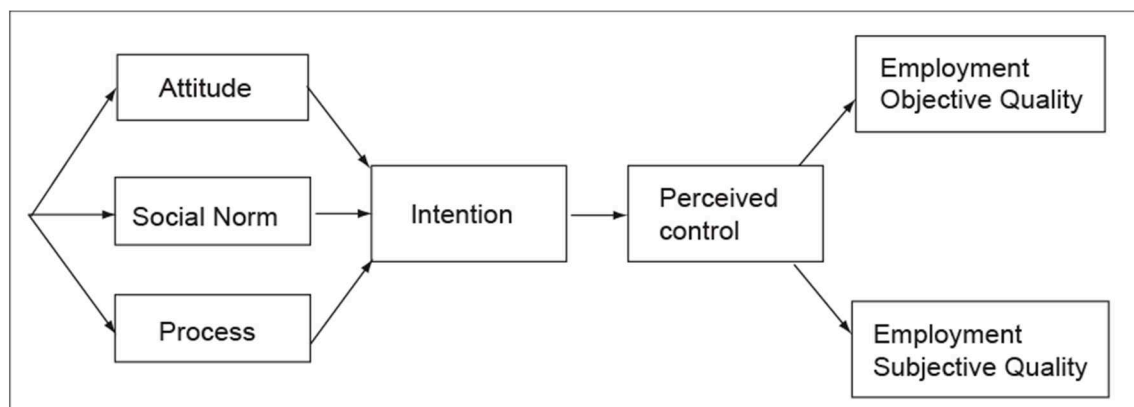


Figure 1. Correlation and causality links in school-to-work transition pattern. This figure was sourced from Reference [33].

Numerous studies focused on the inconsistency between the level of education achieved by young graduates and the level of education required on the labor market at that moment, educational mismatches which lead to an inefficient distribution of the human capital and, ultimately, to social and economic losses. For example, Jeong et al. [35] analyzed the way in which the labor market can keep up with a rapid increase in the educational level in three different countries (the United States of America (USA), Germany, and South Korea) and what happens when the labor market cannot provide a sufficient amount or quality of jobs, so as to fit the existing educational outcomes. The authors reached the conclusion that not only the job information system, but also different labor market institutions can play an important role in solving mismatches, especially when it comes to flexibility or job competency.

The breakdown of the communist regime in 1989 worked as a crossroads not only in the evolution of the Romanian education system, which was subject to various but often incoherent restructurings and reforms, but also in the social and economic environment, which was disturbed by serious disruptions: hundreds of thousands of people formerly employed in agriculture and industry lost their previously safe jobs, finding themselves forced to discover in themselves and develop new professional abilities meant to help them find their place within the newly set-up capitalism [36]. However, just like in other post-socialist countries, not all of them could be integrated within the private sector which emerged in the transition period [37].

These social and economic mutations brought about structural and functional changes in the educational field, reforms aimed at better adjusting the Romanian society to the European requirements of development [38] and, at the same time, at more efficiently aligning the qualities of the workforce to the requirements of the labor market, which are constantly expanding and diversifying [39]. Of course, this process was not gentle, as it was not even in the case of some countries which enjoyed successful experiments and pilots [40]. The transition from a centralized market profoundly pervaded by the communist ideology to the knowledge economy forced Romania to upgrade its educational system in keeping with the demands of the community acquis in the EU pre-integration period. After the collapse of socialism in former communist countries, education was granted a new part in training the youth for the “real world”, the school-to-work transition being more difficult and generating consistent disparities in terms of initial professional walk [41].

However, this transition to the acculturation to Western Europe and its developmental path was not soft, the reform path being undoubtedly often disturbed by the previous political, cultural, social, and economic path dependency matrix [42], the starting conditions being of crucial importance for the success of economic and socio-political transformations [43]. This means that present resolutions and actions can experience restrictions because of past markings which have long-lasting effects, even if they are no longer valid [44].

The authors considered the correlation between the school-to-work transition and the path dependence theory as necessary since the classic communist educational system, rather focused on the theoretical perspective of things than on practical experience, laid hardly ignorable marks on the present context of Romania. Consequently, the theoretical scheme comprising the four distinct evolution phases (Figure 2) was used to describe additions directed to a set of variables and to clarify the existence of some correlations which can explain the synthetic phenomena observed in the first phase.

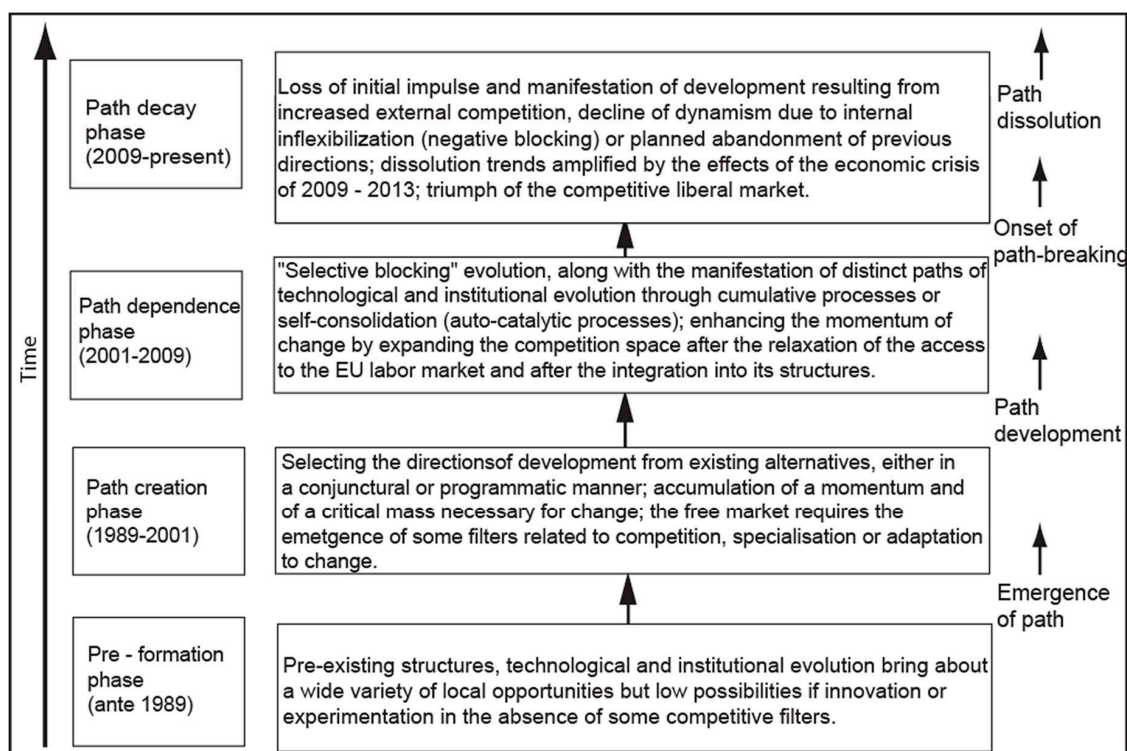


Figure 2. The four phases of path dependent development. This figure was adapted from References [45, 46].

It can be argued that, during the period of time analyzed below, attitudes, social norms, and control perceived on the labor market changed profoundly, providing more freedom to jobseekers and complicating the evolution of the market processes. While these processes used to previously lead, theoretically, to an objective selection, subjective selection processes also resulted from individual choices. The various reforms shaped by different governments after 1989 (also motivated by the general perception that school institutions must get more and more competitive [47]) followed some important directions: highlighting educational sociological principles in an attempt of adapting school to the necessities of students, the implementation of new educational policies by means of a flexible territorial network, professionalization of school management and teaching career, and reorganization of the curricula, didactic methodology, and evaluation of academic results [48]. Post-communist decision factors tried to adjust the Romanian education to the needs of the modern and demanding international systems, understanding the necessity of shifting school processes and activities from those based on moral purposes to those which stake on productivity and efficiency [49] in order to improve and enlarge the cognitive skills of students [50], and to accommodate the present school curricula to the needs of a modern and demanding school system [51]. For example, we could mention the efforts made by Romania by means of the Informational Educational System (launched in 2001 by the Ministry of Education) to provide students with adequate equipment in order to help them acquire the minimum knowledge of computer science, in the context in which, in 2001, Romania recorded an average of 3.5 computers connected to the internet per 100 students. We must also bring forth the idea that,

as a result of the shocks the Romanian economy was subject to after 1989, the occupational structure underwent important changes—not all former types of jobs were able to cope with the requirements of capitalism, which, among other things, largely promotes the reprofessionalization of a certain segment of the labor force in the direction of its absorption within the green sector [52]. The whole process involved a wide range of law initiatives against the background of a constant and significant problem: the low funding of education at all levels [19]. However, many times, these reforms were regarded and perceived as genuine quasi-experiments in the field of the educational policies, with “painful” effects [53]. Despite these steps forward, Romania still faces considerable challenges, such as the large number of children not integrated into the educational system and the high rate of early school leaving and investments in higher education, although beneficial to economic growth, not being able to lower social disparities, as people at risk of exclusion generally face difficulties in graduating from secondary education. This happens against the background of an increasing role of education in smoothing the transition from school to work, which is many times subject to structural dysfunctionalities, since we can speak of a growing incidence of NEETS—youth who are not in employment, education, or training, as a consequence of not managing to get a job after graduation [54]. This happens because of the rising rigidity of the labor market [55] generated by the fact that the requirements of the work field do not perfectly match the configuration of the work force, a fact which exposes them to the challenge of consenting to underemployment in order to bypass unemployment, while ignoring its negative consequences on their career success at a later stage of their lives [56].

2. Materials and Methods

Starting from the statistics provided by the Romanian National Institute of Statistics [57] and Eurostat [58], the analysis methodology comprised two different stages as follows:

- (1) The descriptive analysis of representative indicators, depending on identified evolution trends and cycles, correlated with significant moments of the political, economic, and educational transition: the privatization of services and productive activities, the relaxation of the access to the EU labor market beginning with 2001, the EU integration after 2007, and the manifestation of the recent economic crisis (2009–2014);
- (2) The selection of the representative indicators with coherent chronological data series in order to test the extent to which their evolution corresponds to the theoretical path dependence model. The chosen indicators were grouped into three categories (those describing the evolution of unemployment, those depicting the dynamics of the labor market, and those related to vocational training) and used to produce a principal component analysis following three steps, listed below.
 - (a) Designing an unemployment rate index and an employment rate index

The synthetic analysis was based on the evolution of two indicators: IU (unemployment index) and IE (employment index). The period established for analysis was 1990–2016, and the authors made use of relative values (standardized values at the arithmetic mean of each chronological series). The option for standardization was meant to remove extreme variations, with standardization bringing further comparability and accuracy. The values of the two indices were estimated on the basis of a principal component analysis (PCA) that allowed score function parameters to be obtained. The following independent variables were considered in order to calculate IU and IE:

- Unemployment rate (UNR) for IU;
- Unemployment 15–24 years (U 15–24) for IU;
- NEET unemployment (U-NEET) for IU;
- High school and higher education unemployment (U-HSHE) for IU;
- Employment rate (ER) for IE;
- Total activity rate (RTACT) for IE;

- Total activity rate 15–24 years (RTACT 15–24) for IE;
- Total activity rate 25–34 years (RTACT 25–34) for IE.

For the calculation of IU and IE, the matrix of the abovementioned components was considered. The equation model took into account the β and γ values of the components. The mathematical formalization of the equation was as follows:

$$(IU) = \beta_1 \cdot UNR + \beta_2 \cdot U_{15-24} + \beta_3 \cdot U_{NEET} + \beta_4 \cdot U_{HSHE}; \quad (1)$$

$$(IE) = \gamma_1 \cdot ER + \gamma_2 \cdot RTACT + \gamma_3 \cdot RTACT_{15-24} + \gamma_4 \cdot RTACT_{25-34}. \quad (2)$$

The equations obtained by introducing the estimations resulted from the PCA were as follows:

$$(IU) = -0.877 \cdot UNR + 0.867 \cdot U_{15-24} + 0.888 \cdot U_{NEET} + 0.464 \cdot U_{HSHE}, \quad (3)$$

$$(IE) = 0.969 \cdot ER + 0.926 \cdot RTACT + 0.868 \cdot RTACT_{15-24} + 0.962 \cdot RTACT_{25-34}, \quad (4)$$

where $IU \approx N(0,1)$, with $\min(IU) = -1$ and $\max(IU) = 1$; $IE \approx N(0,1)$ with $\min(IE) = -1$ and $\max(IE) = 1$.

- (b) Estimating and testing the influence of some explanatory factors, such as share of the population attending vocational training, share of persons following such courses, share of secondary- and higher-education graduates, and share of school population aged 15–23. In order to estimate and test this influence, a multiple regression was conducted based on four determinants: the share of people attending vocational training (PCP), the share of the unemployed attending vocational training (UCP), the share of graduates with higher education (HED), and the share of the 15–23-year-old school population (PS 15–23). The regression model retained for IU and IE was as follows:

$$IU = \theta_0 + \theta_1 \cdot PCP + \theta_2 \cdot UCP + \theta_3 \cdot HED + \theta_4 \cdot PS_{15-23} + \varepsilon; \quad (5)$$

$$IE = \theta_0 + \theta_1 \cdot PCP + \theta_2 \cdot UCP + \theta_3 \cdot HED + \theta_4 \cdot PS_{15-23} + \varepsilon. \quad (6)$$

- (c) Estimating and testing the influence over time of the explanatory factors on the two indices, the third period (2009–present) being taken as a reference point. The retained analysis model was as follows for each of the two indices:

$$IU = \theta_0 + \theta_1 \cdot PCP + \theta_2 \cdot UCP + \theta_3 \cdot HED + \theta_4 \cdot PS_{15-23} + \theta_5 \cdot P_1 + \theta_6 \cdot P_2 + \theta_7 \cdot P_1 \cdot PCP + \theta_8 \cdot P_1 \cdot UCP + \theta_9 \cdot P_1 \cdot HED + \theta_{10} \cdot P_1 \cdot PS_{15-23} + \theta_{11} \cdot P_2 \cdot PCP + \theta_{12} \cdot P_2 \cdot UCP + \theta_{13} \cdot P_2 \cdot HED + \theta_{14} \cdot P_2 \cdot PS_{15-23} + \varepsilon;$$

$$IE = \theta_0 + \theta_1 \cdot PCP + \theta_2 \cdot UCP + \theta_3 \cdot HED + \theta_4 \cdot PS_{15-23} + \theta_5 \cdot P_1 + \theta_6 \cdot P_2 + \theta_7 \cdot P_1 \cdot PCP + \theta_8 \cdot P_1 \cdot UCP + \theta_9 \cdot P_1 \cdot HED + \theta_{10} \cdot P_1 \cdot PS_{15-23} + \theta_{11} \cdot P_2 \cdot PCP + \theta_{12} \cdot P_2 \cdot UCP + \theta_{13} \cdot P_2 \cdot HED + \theta_{14} \cdot P_2 \cdot PS_{15-23} + \varepsilon.$$

The analysis of the main components (PCA) was used in order to obtain the two indices, while generalized linear models (GLMs) [59] facilitated the analysis of the influence over time of the considered factors on the two indices. The option for this modeling pattern was based on the hypothesis of a significant influence of the explanatory factors on the change of the transition from school to work, since they could be considered as predictors of cyclical changes and evolutionary trends. The ultimate aim of the analysis was to identify the peculiarities of the school-to-work transition in Romania and to determine its degree of dependence on the factors that are involved in the labor market. This objective was necessary to be able to analyze the territorial disparities arising from the manifestation of a differentiated resilience capability to the shocks of transition. The previously mentioned variables are understood according to their definition by the Eurostat methodology.

3. Results and Discussion

3.1. Descriptive Analysis

The descriptive analysis of some indicators referring to the relationship between schooling, sustainable education for the future, and the labor market shows that the Romanian society faced a period of significant mutations. Educational policies, although not explicitly geared toward meeting the demands of a changing labor market, tried to mitigate negative evolutions, such as youth unemployment (15–24 years) or dropout rates. The lack of coherent policies is also the result of the inconsistency of spending on education which, although steadily rising after 1990, ranged between 3.4% and 4.4% of gross domestic product (GDP), regardless of macroeconomic conditions, representing one of the lowest budget allocations in Europe. The desideratum frequently promoted by electoral campaigns or public speeches of politicians (6% of GDP) is far from being reached. In 2004, for example, Romania had the lowest budget share for education in Europe, with only 3.29%, compared to the 5.1% average of the 24 EU Member States, with values ranging from 8.47% in Denmark to 3.93% in Luxembourg. However, it is noteworthy that, after having fluctuated around 3–3.5% of GDP, the budget allocated to education experienced a significant leap in 2006 (4.52%), approaching the EU average [60]. Unfortunately, subsequent values were lower, never again reaching the 2006 peak. Demographic changes led to a drop in school population, progressively propagated from primary to higher education, generating an increase in enrolment in secondary or higher education, where new permanent study programs were opened or private institutions were developed (Figure 3).

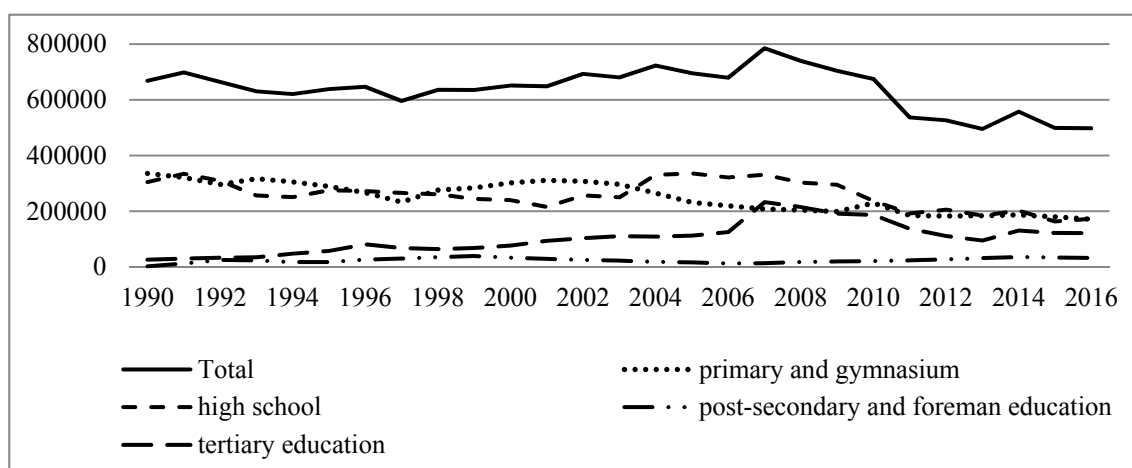


Figure 3. Total number of graduates by education level. Data were sourced from Reference [57].

The more significant increase in the enrolment rate in higher education was manifested until 2008 when, following the entry into this cycle of the generation born in 1990 (a year which recorded a steep decline in birth rates), there was a significant decline which continued until 2014, closely linked with the 2009–2013 economic crisis and the European integration in 2007, which opened up multiple job mobility opportunities (Figure 4). It should be noted that the number of average education graduates (aged 15–18) was rather steady in recent years, the decline caused by the drop in birth rate in 1990 not being felt. This shows a sustainable trend of massive inclusion in the average education system, correlated with the constant reduction of the vocational–technical education opportunities.

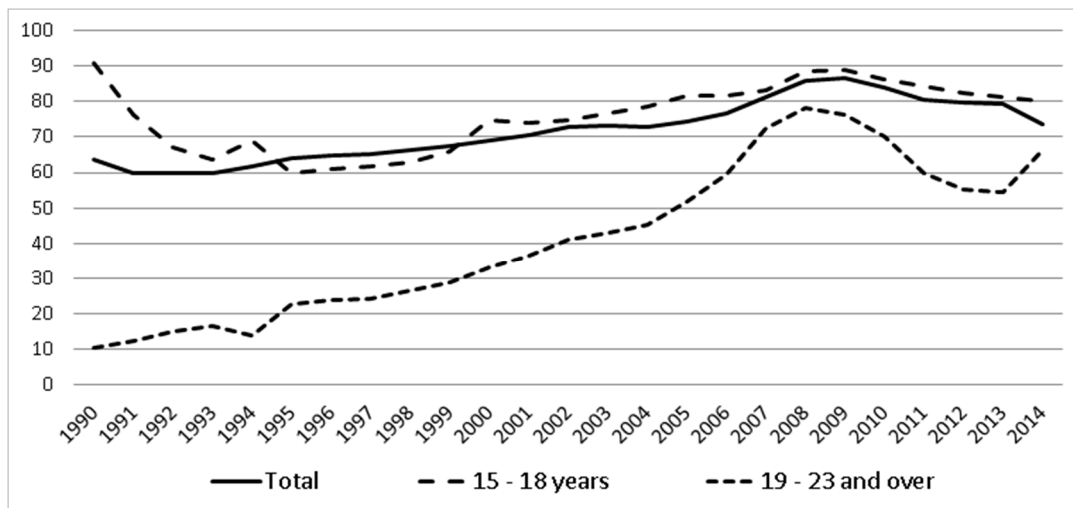


Figure 4. School enrolment rate in Romania. Data were sourced from Reference [57].

School dropout has profoundly negative aftermaths for the future labor market, decreasing the chances of these persons of getting sustainably integrated into it and, thus, causing them to fail in playing a role in shaping a sustainable world. These trends are also revealed by the analysis of the evolution of the share of the low-educated population (gymnasium and elementary school graduates or persons having no education), but there are also contradictory phenomena. Although the reduction of their share was slow if we take into account the population aged 25–64 years (from 31% in 2000 to 28% in 2014, according to the data provided by the National Institute of Statistics), in the case of the population aged 25–34, there was a divergent trend compared to the group aged 55–64. The significant increase in the low-educated young population, from 13% in 2000 to 25% in 2014, is the effect of an often occulted phenomenon, that of early school leaving. Particularly manifested amongst high-social-risk populations (Roma community or the rural population as a whole), this phenomenon is ineffectively targeted by public policies. This evolution can also be correlated with the reduction in the number of places in vocational schools as a result of uninspired reforms. On the contrary, the generation aged 55–64 experienced a massive decrease in the analyzed range, precisely as a result of its massive inclusion in vocational education during the communist period.

As already pointed out, the phenomenon of school leaving is a reality, including in the medium- or higher-education cycle. The trend of increasing the share of students who do not get a baccalaureate or bachelor's diploma strengthened especially after 2010, when the conditions for the organization of exams changed. The school dropout rate, which reflects the difference between the number of pupils enrolled at the beginning and at the end of the school year is, according to official figures, far from capturing reality, many of those who leave school being excluded from school records. The significant increase in abandonment rate in post-secondary and foremen education, two very popular forms of professionalization, can be assigned to deindustrialization (in the case of foremen schools) or to the competition induced by opening up higher-education branches (the case of nurse qualifications provided by universities and post-high schools). Correlated to the evolution of age structure, school dropout at the end of the gymnasium cycle can be estimated at over 30%, the highest level in the European Union. Territorial disparities are difficult to connect to the level of economic development or to the degree of urbanization, with more economically advanced areas (southern Transylvania, Banat) having a surprisingly high abandonment rate (Figure 5).

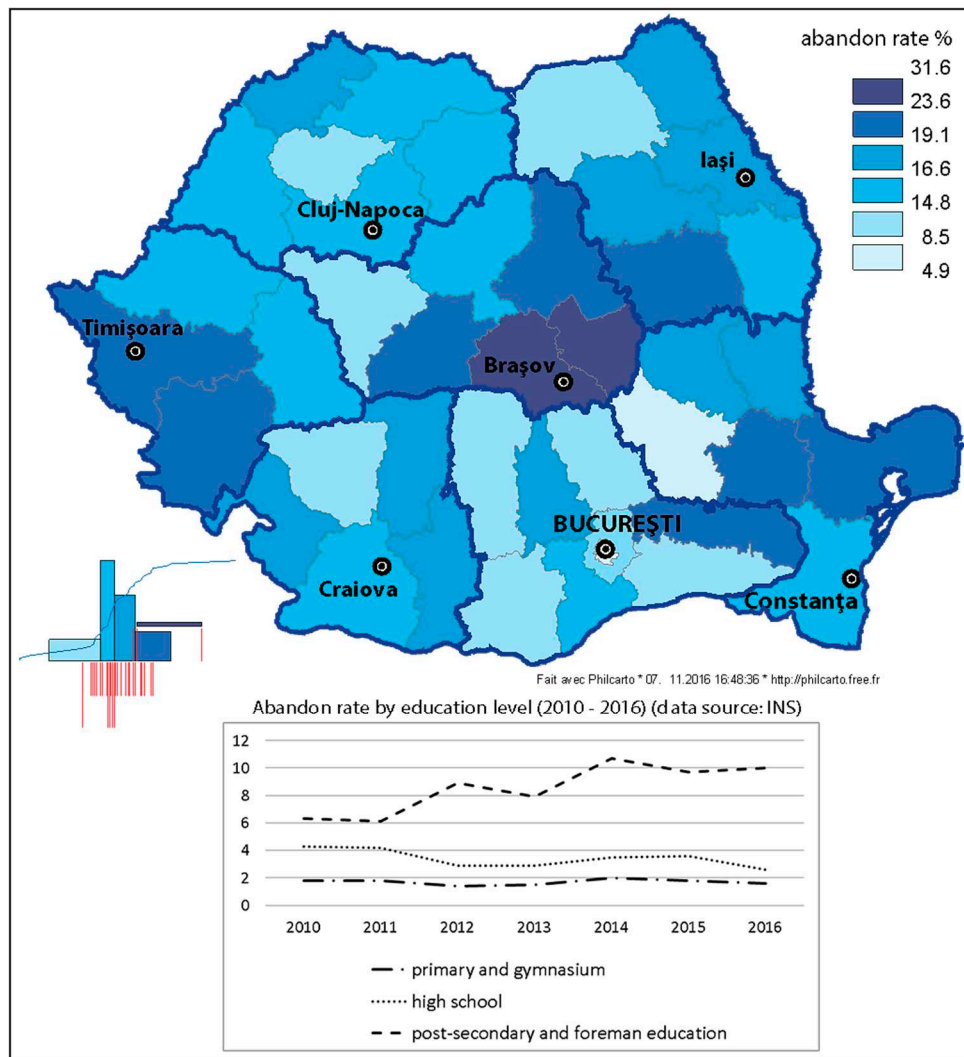


Figure 5. Abandon rate in pre-university education. Data were sourced from Reference [57].

University dropout is more difficult to investigate, with official statistics providing incomplete information. In 2013, the National Alliance of Student Organizations in Romania [60] advanced a share of 38.7% of students who dropped out from higher education. The lack of professional orientation in pre-university cycles may be the main cause of this type of abandonment. This leads to an increasing risk of poverty, inequalities, and low welfare, which does not comply with the sociological principles of sustainable development, according to which the labor market should be inclusive, providing real work opportunities and good-quality jobs able to ensure social security and a living salary. Extending the duration of studies had no effect on the transition from school to work. On the contrary, as the period spent in various forms of education was prolonged, the youth employment rate continued to decline, inducing more and more pressure on the public sector to generate jobs for a growing number of higher-education graduates. The employment rate among young people (15–24 years old) was steady in recent years, following a long-lasting downward trend. The value recorded in 2015 (23.9%) is well below the European average (32.9%), expressing both the lack of opportunities and the manifestation of a cultural model (Figure 6). Romania is dealing with some critical situations regarding the rate of young people who neither work nor study. This leads to an increasing risk of poverty and inequalities.

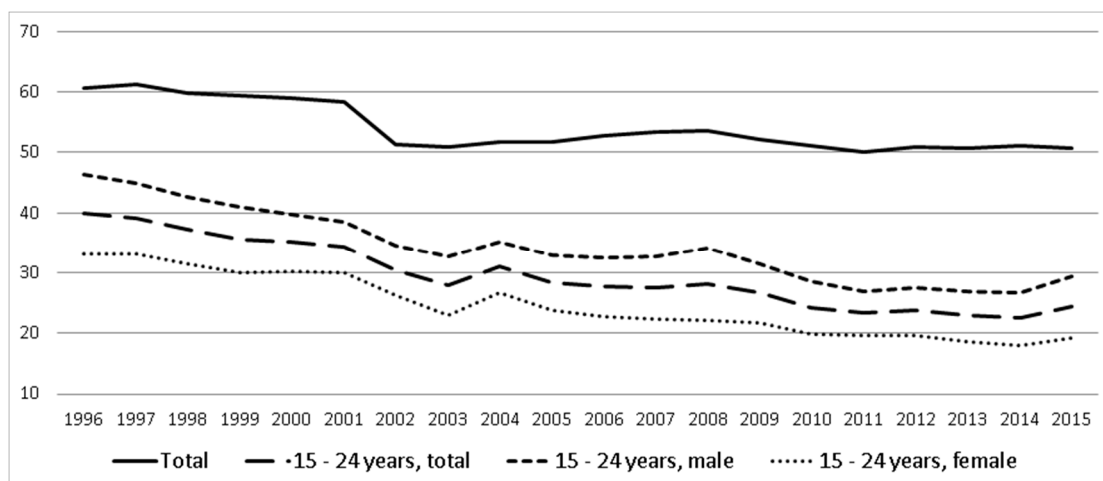


Figure 6. Employment rate by age and gender. Data were sourced from Reference [57].

The analysis by educational level shows a declining trend of the employed working-age group (15–64 years old) for the population with an average or low education level and a positive dynamic in the case of the population with higher education. This evolution, contrary to the general dropping declining trend recorded by the employed population, introduced significant changes in the structure of the employed population by its professional training, with the share of the tertiary education category rising from 9.8% in 2000 to 18.6% in 2012. This doubling, in a relatively short period of time, can be interpreted as an effect of the increased quality of jobs, especially in services, which became dominant as a form of employment during this period. The 2020 estimations show that this trend will continue, with values approaching the EU average (32% in 2016) [58]. The employment rate of young people aged 15–24 dropped directly proportionally to the increase in the number of students. The labor market response to this new situation was a rise in the number of employees, in the education system, especially in the humanities and socio-economic fields, to the detriment of the technical specializations, which experienced a regress. Generating new jobs could not keep up with the alert rhythm of growth of the number of graduates with higher education. New jobs in attractive areas (financial/banking, information technology (IT)) are concentrated in major cities, and the services sector clearly exceeds the productive field in providing new opportunities.

There is a direct relationship between the level of education and unemployment, which reflects the lack of performance or, on the contrary, the performance of the educational system. Unemployment rates generally decrease when the level of education increases. The labor market more easily absorbs a graduate with higher education, even below his competencies, mainly due to his integration capacity and his openness to life-long learning. The recent evolution shows that there is a tendency of convergence in Romania; the number of those unemployed with average education, which recorded high values for a long period of time, is now dropping, while that of those unemployed with higher education is increasing. This raises another question on the effectiveness of the Romanian educational system. By age group, there is an increase in the difference between those aged 15–24 and those over 25 years, thus proving that the young people are the most vulnerable on the Romanian labor market. The high number of unemployed young people aged 15–24 and 25–34 reflects the inefficiency of the education system and the lack of knowledge of the new market principles, based on competition and competitiveness, the lack of studies on labor market demands, the inflexibility of initial training programs, and their lack of finality, as well as a slow process of accepting the new principles of continuing education and its role in adjusting the educational defects brought about by the economic transition. The benefits of higher education can also be noticed by analyzing the level of training of the unemployed. In 2014, Romania recorded 142,955 unemployed people who had completed a pre-university or university form of education. If we refer to primary, secondary, and vocational education graduates, they represent 45.69% of the total number of unemployed. Those

unemployed with high-school and post-high-school education count up to 41.45%, while only 18.382 (12.86%) of those unemployed are registered as having higher education [57]. It is conspicuous that tertiary-education institutions can play the role of genuine levers capable of promoting regional sustainability projects meant to alleviate regional disparities [61], including by providing impartial educational opportunities and by helping preventing dropout as part of the sustainable education sociological strategy. In order to achieve these goals, universities have to develop a governance culture based on the principles of social responsibility [62], further contributing to deepening the interrelation between economic and social performance, as well as to designing sustainable sociological solutions to the challenges of the 21st century [63]. The comments are obvious, whereby the unemployment rate is decreasing by passing from a lower level of education to a higher one and by getting old (as a matter of fact, age and the level of education/qualification are directly correlated) (Figure 7).

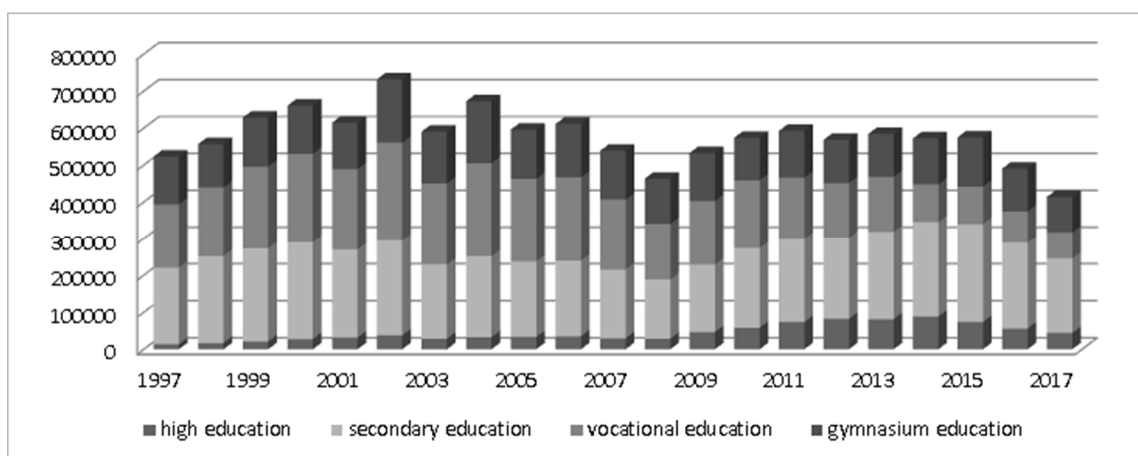


Figure 7. Unemployed persons by level of education. Data were sourced from Reference [57].

Against this general background, the labor force is unevenly affected by labor market disruptions and/or the disagreements between demand for qualifications and skills on the labor market and the supply of the education system—the education market. Thus, the unemployment rate of young people aged 15–24 was and still is the highest; in the period 1999–2002, it was more than double in comparison to the 35–64 age group. In addition, this group (usually with a low or intermediate qualification at the most) has to face one more problem: the security of the job people have at some point. Thus, the risk of unemployment is higher for this category, which ranks among the most disadvantaged on the labor market. In countries such as Belgium, Estonia, Greece, Spain, France, Ireland, Italy, Latvia, Lithuania, Poland, Slovakia, Finland, Sweden, Bulgaria, and Romania, the unemployment rate of this age group exceeds 20% [58]. The unemployment risk (caused by the periodical fluctuations of the two markets (labor and education) is the most strongly felt by both the youngest and the oldest workers. Of course, with respect to the variations in the unemployment rate (including that of people with higher education per age groups), there are natural differences in time and space between the member countries. As regards the Romanian youth's unemployment rate (15–24 years old), while it was 18.3% in 2000, below the EU 27 average (18.4%), in 2010, it was much higher (22.1%), exceeding the European average (20.9%). After 2008, there was a sharp rise in the youth unemployment rate from 18.6% (2008) to 23.7% (2011), an increase comparable to that recorded at the EU 27 level (5.1 pp). In 2012, the youth unemployment rate was 22.7%, down by one percentage point compared to the previous year and very close to the European average of 22.8%, but well below the level recorded in Member States such as Greece (55.3%), Spain (53.2%), Portugal (37.7%), and Italy (35.3%) [58]. It should be noted that the unemployment figures in Romania are masked by massive emigration (3–4 million Romanian citizens, according to current estimates [57]).

A worrying factor is the increase in the number of young people (aged 15–24) who are not in education, employment, or training (the so-called NEETs), which indicates difficulties in the transition

from the education system to the labor market and which represents one of the categories that particular attention should be paid to in the coming period. The high level of young people who are neither employed nor involved in any form of education or training increases the poverty and social exclusion risk among these people. In 2008, the NEETs group comprised 11.6% of the Romanian youth aged 15–24, the share recording a rising tendency until 2015 (the year which registered the highest value of this indicator—18.1%), followed by a descending trend during the next two years [64], against the background of a constant overrepresentation in comparison to the EU dynamics (Table 1).

Table 1. The number of young people who are not in education, employment, or training (NEET) rate for the population aged 15–24 (% of population 15–24). Data were sourced from Reference [58].

GEO/TIME	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
EU28	10.9	12.4	12.8	12.9	13.2	13	12.5	12	11.6	10.9
Romania	11.6	13.9	16.6	17.5	16.8	17	17	18.1	17.4	15.2

The school-to-work transition is easier for those who work during their studies. In European countries where there is a stronger link between school and work (which promote apprenticeship programs and where part-time work is supported by both employers and educational institutions etc.), the shift from school to work is much easier. Romania is among the EU states with the lowest percentage of young people working during studies [65] and, when they do it, they are forced to work full-time, which is a serious impediment to continuing and completing their education. In Europe, the share of working students is about 28%, with Finland (56%), Denmark (61%), and the Netherlands (69%) clearly standing out. At the opposite end, there are Romania, Bulgaria, and Greece, where less than 10% of students combine education and work, after Eurostat data. The youth in eastern Europe, formerly part of the communist bloc, face longer transition periods in comparison to the European average in the case of all low and medium educational levels. This is especially the case for Bulgaria (21.5 months), Slovakia (24.3 months), and Poland (17 months). Romania records slightly higher values than Hungary and the Czech Republic, being also above the European average: 12.5 months for those with a low educational level, 12 months for those with a medium educational level, and 7.3 months for those with a high educational level. Once more, we have confirmation of the fact that tertiary education helps people more easily find their place on the labor market [60].

3.2. Multivariate Analysis

1. The descriptive statistical analysis of the parameters used (UNR; U 15–24, U-NEET, and U-HSHE for the unemployment index and ER, RTACT, RTACT 15–24, and RTACT 25–34 for the employment index) is displayed in Table 2.

Table 2. Results of the descriptive statistical analysis of variables.

Descriptive Statistics				
Index		Mean	Std. Deviation	Analysis N
IU	UNR	0.9985	0.33465	26
	U 15–24	1.0012	0.23456	26
	U-NEET	1.0004	0.33449	26
	U-HSHE	0.9988	0.30379	26
IE	ER	0.9992	0.09674	26
	RTACT	1.0000	0.06356	26
	RTACT 15–24	1.0004	0.20664	26
	RTACT 25–34	0.9988	0.04852	26
	ER	0.9992	0.09674	26

The results of the PCA indicate the links between the variables the two indices comprise, being reinforced by the correlation matrix (Table 3). The significantly positive correlation between U-HSHE and UNR can be interpreted as an initial refusal of this category to accept the existing job offer. The unemployment which affects this category can be interpreted as a combination of structural unemployment and voluntary unemployment. The positive correlation between the unemployed who have never worked (NEE) and the 15–24 age group is logical, with their share being independent of the rate of unemployment, but relatively correlated with U-HSHE.

Table 3. Correlation matrix.

UNR	U 15–24	U-NEET	U-HSHE
1.000	−0.613	−0.705	0.390
−0.613	1.000	0.757	−0.244
−0.705	0.757	1.000	−0.173
0.390	−0.244	−0.173	1.000
ER	RTACT	RTACT 15–24	RTACT 25–34
1.000	0.952	0.757	0.894
0.952	1.000	0.647	0.842
0.757	0.647	1.000	0.847
0.894	0.842	0.847	1.000
1.000	0.952	0.757	0.894

The matrix of component correlation served to calculate their influence on IU and IE, according to the equation model described in Section 2. The result of applying the equation shows that, in the case of IU, the values of the components used were less correlated (0.681) than in the case of IE (0.741) (Figure 8).

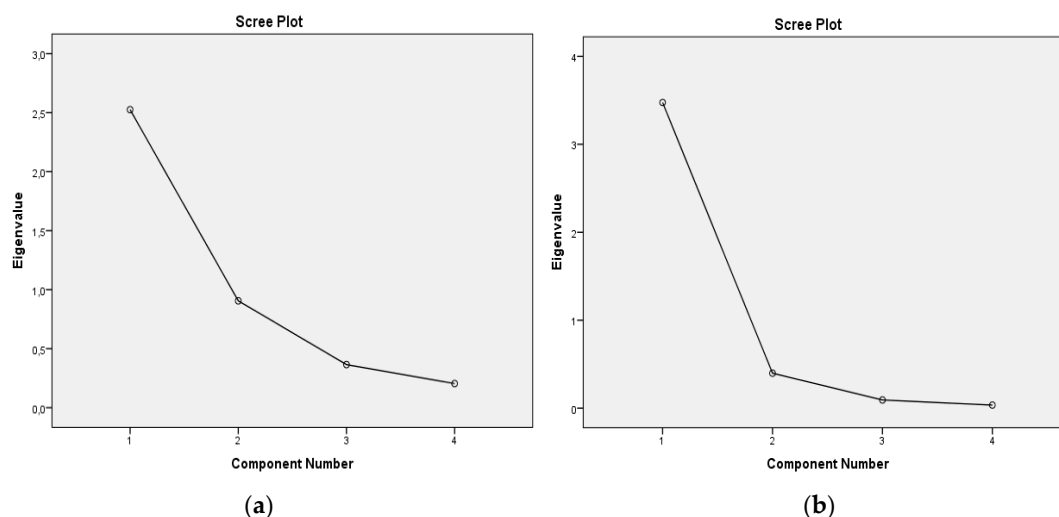


Figure 8. (a) Unemployment index (IU) and (b) employment index (IE).

The interpretation of IU and IE values, supported by their graphic representation, demonstrates the difficulties young graduates (with average or higher education) face when trying to get inserted into the labor market, as well as the importance of the level of professional training. A deeper analysis (by introducing new variables, such as the share of unemployed people undergoing vocational training) may further highlight the importance of training activities even if the results indicate the difficult integration of young graduates into the labor market. A deeper dimension of this interpretation can also be obtained by testing the influence over time of the analyzed variables on IU and IE, given the gradual expansion of tertiary and vocational training, especially after integration in the European

Union. This helps grasping the influences of the reminiscences of the centralized model of labor market integration, at least for the years 1990–2000, or the impact of the transition to a free market economy.

In this respect, two further analyses were carried out in order to deepen the results of the previous analysis.

2. The first of these two tested the influence of some variables considered as determinant factors for the previously calculated IU and IE. The four factors taken into account (PCP, UCP, HED, and PS 15–23) express, on the one hand, the relationship between the forms of vocational training, including those aimed at the unemployed, and, on the other hand, the relationship between IU and IE. The results of this analysis are shown in Tables 4 and 5. This situation may reside in the fact that the Romanian labor market is insufficiently solid. On the basis of the determination ratio, estimated after performing the regression analysis, the four variables introduced in the analysis explain 45.8% of IU variation and 85.5% of IE variation. The fact that the UCP and PS 15–23 parameters are strongly correlated in the case of IU certifies the maximum incidence of unemployment among graduates with secondary or higher education. Consequently, the presence of major difficulties in labor market integration becomes indubitable. An explanation for the job offer being in contradiction with the demand is related to the excessively high share of the active population in the primary sector, which indicates sequelae of a chronic underdevelopment, especially in rural areas [66].

Table 4. Estimations of the regression model parameters for Equation (5).

	Parameter	B	Standard Error	t	Significance
IU	Intercept	−3.226	1.644	−1.962	0.063
	PCP	0.311	0.750	0.415	0.682
	UCP	1.308	0.786	1.663	0.111
	HED	0.310	0.819	0.378	0.709
	PS 15–23	1.291	2.451	0.526	0.604

Table 5. Estimations of the regression model parameters for Equation (6).

	Parameter	B	Standard Error	t	Significance
IE	Intercept	4.855	0.851	5.706	0.000
	PCP	0.171	0.388	0.440	0.665
	UCP	0.675	0.407	1.660	0.112
	HED	−0.381	0.424	−0.898	0.379
	PS 15–23	−5.311	1.268	−4.187	0.000

In the case of IE, the influence of UCP and PS 15–23 was significant, illustrating the importance of vocational training activities in reducing unemployment and in increasing employment. However, the contrasting values of the two parameters show that a graduation diploma is not sufficient for labor market integration, with post-secondary or post-graduate life-long learning activities being necessary. It should be noted that, from this point of view, Romania has the lowest values of the adult learning indicator in the European Union, even lower than those of candidate countries, in addition to the values dropping between 2011 and 2016 (from 1.6% to only 1.2% compared to the European averages of 9.1 and 10.8% respectively, according to Eurostat).

3. The last analysis was meant to estimate and test the influence in time, over the three suggested periods (P1, P2, and P3), of the same parameters on IU and IE. The descriptive statistical analysis table highlights a certain turbulence of P1 (in the 1990s) and P3 (the current period). In the first case, this can be related to the start of the transition to a market economy and, in the case of P3, to the influence of the economic crisis that worsened unemployment, just like in the 1990s. By contrast, in the case of P2, the pre-accession policies and the opening up of the EU labor markets

for Romanian citizens adjusted possible asperities. In relation to the reference period (P3), P1 records negative values and P2 records positive ones. On the basis of the determination ratio (R^2) estimated from the regression analysis, the four variables introduced in the analysis explain 45.8% ($R^2 = 0.964$ (adjusted $R^2 = 0.918$)) of the IU variation, and 85.5% ($R^2 = 0.980$ (adjusted $R^2 = 0.955$)) of the IE variation. In the case of unemployment, the analysis of the influence over time shows a reduced incidence of the four explanatory factors, correlated with the immaturity of the Romanian labor market, still dominated by low- or medium-skilled jobs. That is why the share of graduates with higher education is somewhat significant in the context of the recent development of services and IT activities. There is a strong significance of HED and PCP, which demonstrates the importance of tertiary and vocational training in fighting unemployment and in ensuring a better insertion into the labor market. The statistical analysis of the evolution of the variables over the three periods of time shows a discordant evolution of IU and IE. The first index evolved from negative regression values in the first post-communist decade to positive values, with a peak in the pre-accession period, in line with the dynamics of the macroeconomic indicators (declining industrial output, falling demand, accelerating inflation, etc.).

The second index changed from positive regression values in the first post-communist decade to negative, subsequently stable values, which are explicable in the new context generated by the easier access to the community labor market after 2001, with much of the surplus of labor force produced by economic reforms emigrating and, thus, reducing the incidence of unemployment, a trend that became stronger since the country's integration into the European structures in 2007. Using GLM, the multiple regression (which took P3 as a reporting period), generated the following results for each of the two indicators (Tables 6 and 7):

Table 6. Results of multiple regressions using a generalized linear model (GLM) for IU.

Parameter	IS			
	B	Std. Error	T	Sig.
Intercept	23.511	4.222	5.568	0.000
PCP	3.288	0.883	3.725	0.003
UCP	−9.430	2.627	−3.589	0.004
HED	−0.774	1.064	−0.728	0.482
PS 15–23	−10.317	2.942	−3.507	0.005
[Period = 1]	−34.757	6.053	−5.742	0.000
[Period = 2]	−37.845	12.664	−2.988	0.012
[Period = 3]	0 ^a			
[Period = 1] * PCP	−4.938	1.103	−4.477	0.001
[Period = 2] * PCP	−3.364	1.027	−3.276	0.007
[Period = 3] * PCP	0 ^a			
[Period = 1] * UCP	14.581	2.963	4.921	0.000
[Period = 2] * UCP	9.285	3.016	3.079	0.010
[Period = 3] * UCP	0 ^a			
[Period = 1] * HED	5.602	1.932	2.900	0.014
[Period = 2] * HED	1.730	1.282	1.350	0.204
[Period = 3] * HEDP	0 ^a			
[Period = 1] PS 15–23	16.864	5.824	2.895	0.015
[Period = 2] * PS 15–23	22.839	12.504	1.827	0.095
[Period = 3] * PS 15–23	0 ^a			

Table 7. Results of multiple regressions using a GLM for IE.

Parameter	IO			
	B	Std. Error	t	Sig.
Intercept	6.563	3.148	2.085	0.061
PCP	0.215	0.658	0.326	0.750
UCP	−3.683	1.959	−1.881	0.087
HED	0.022	0.793	0.027	0.979
PS 15–23	−2.080	2.193	−0.948	0.363
[Period = 1]	−9.269	4.513	−2.054	0.065
[Period = 2]	−5.211	9.441	−0.552	0.592
[Period = 3]	0 ^a	.	.	.
[Period = 1] PCP	−1.063	0.822	−1.292	0.223
[Period = 2] PCP	−0.653	0.766	−0.853	0.412
[Period = 3] PCP	0 ^a	.	.	.
[Period = 1] UCPF	6.524	2.209	2.954	0.013
[Period = 2] UCP	3.482	2.248	1.549	0.150
[Period = 3] UCP	0 ^a	.	.	.
[Period = 1] HED	−1.760	1.440	−1.222	0.247
[Period = 2] HED	0.353	0.956	0.370	0.719
[Period = 3] HED	0 ^a	.	.	.
[Period = 1] * PS 15–23	5.908	4.342	1.361	0.201
[Period = 2] * PS 15–23	0.673	9.321	0.072	0.944
[Period = 3] * PS 15–23	0 ^a	.	.	.

Following the evolution of each period, for each of the two indices, it can be noticed that P1 is marked by the reminiscences of the educational model of the totalitarian period, with a reduced influence of the vocational training activities. On the contrary, P2 faces an increased incidence of training courses for the unemployed, of continuous training courses, or of the changes induced by the implementation of higher-education reforms (Bologna model). It can be argued that, despite structural shortcomings, the transition to the market economy introduced several filters specific to the free market, especially some of its components (competition, specialization), with their effects resonating gradually.

This transitional phase took place until 2002, when the access to the Schengen labor market relaxed these filters, allowing for the amelioration of some previously aggressive trends, such as the massive increase in unemployment.

4. Conclusions

On the whole, the school-to-work transition in Romania records specific forms, influenced by the difficulty of the inherited structures to adapt to the economic, social, and cultural shocks generated by the transition from a centralized communist system to a free market economy. Many times, there is a gap between the theoretical knowledge of graduates and their practical skills. It is essential to facilitate the transition from education to professional life, including by increasing the number of quality traineeships. Also, there should be funded and developed programs which encourage the fast insertion of young people into the labor market. Ensuring an increased quality of the vocational and technical education, academic system, and lifelong learning, as well as an easier access to them, could improve people's adaptation to the current needs of the labor market. The resilience capacity of the categories affected by these shocks seems to be dependent on the access to higher or additional forms of vocational training.

Overall, the process can also be influenced by the gradual replacement of generations. At present, those affected by unemployment or entering the labor market do not know the rigors of the communist experience, being more open to experimenting with various (including temporary) ways of regulating the difficulties encountered in getting a job. What was analyzed is the national profile, which is

circumscribed, to a certain extent, to the evolution pattern specific to former communist countries. Territorially, there may appear specificities which enable us to understand the appearance and deepening of the significant development gaps on the labor market, subsequent to the communist convergence in keeping with the desiderata of the totalitarian regime.

The tendencies expressed by the chronological evolution of the analyzed parameters reveal a natural evolution from a centralized model, with a general access to the labor market but restrictive with respect to the access to higher education, to a liberal, competitive, and future-orientated model characterized by a relaxation of access to all forms of education, with the insertion of market-based training structures. At the same time, there are increased difficulties of getting inserted into the labor market due to the competitiveness and emergence of certain phenomena specific to post-modern societies (over-qualification of labor force, job instability, etc.). In this respect, the current labor market requires a series of skills and abilities that the vocational training system was not prepared for and had to adapt under way, many times through contradictory measures or by imitating models which are inappropriate to the specificity of Romanian society. Discrepancies between what the education system can offer and the real needs of the labor market are, thus, inevitable, requiring to be solved precisely in order to allow for a better insertion of young graduates. The insertion in the circuits of the increasingly globalized competitive labor market forces the structures that ensure the school-to-work transfer to adapt. The analysis of the national profile reveals the dependence on previous mechanisms, difficult to adapt to the new conditions. We can also talk about the existence of a certain delay in this process, with the emergence phase of the new model lasting for more than a decade (1989–2001). The shock of the transition was not brutal, as in other states in the region. It was moderate but unallowably long, with reverberations which can still be felt, including at the local level. The Romanian school-to-work transition remains to be completed, with the shift from the centralized system to the free market being not linear and manifesting an uneven territorial diffusion. The European integration boosted this transition, especially as regards the attitudes and choices of young people, who no longer regard the labor market in a narrow, national sense but at the European level, as illustrated by the low influence of the unemployment rate within the multivariate analysis.

When evaluating the results of this study in the context of the sociology of education and sustainable development, it can be noticed that the previously established educational model, along the evolution of contemporary Romania, still plays a major role, with the mentalities and structure of the educational system being difficult to change. However, following the results and progress of other central and eastern European countries, it can be noticed that the changes and increasing adaptability of the labor market can be achieved through sustainable education, by creating a durable link between education and economic development policies. A future-oriented education system has to promote values, attitudes, and behavioral patterns suitable for a reality in which both the principles of the sociology of education and sustainable development can be found.

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Article

ESD for Public Administration: An Essential Challenge for Inventing the Future of Our Society

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Abstract: The role of local and central public administrations in promoting sustainable development and building up a better future for society is essential. In order to fulfill this mission, employees in public administration sector must engage in long life learning processes, for the purpose of developing skills such as: anticipation, interdisciplinarity, diversity of perspectives, working with incomplete or complex information, participation in sustainable development processes, cooperation, individual decision-making capacities, empathy, solidarity, and self-motivation. The Education for Sustainable Development as a component of lifelong learning is, in this light, of utmost importance. In this spirit, this paper investigates what is the Romanian public sector employees' perception of long life learning as an essential premise of Education for Sustainable Development, by analysing on the one hand the degree of digital maturity of public institutions in Romania, and on the other hand the interest of employees in such institutions to engage in Education for Sustainable Development function of the following disjunct behavioural/emotional states: Disappointment, Conflicts, Satisfaction/Contentment, Doubt, Exhaustion, Attachment.

Keywords: Education for Sustainable Development; lifelong learning; public administration; digitalisation

1. Introduction

United Nations Sustainable Development Goals (SDGs) define a developmental corridor and a welfare concept with which a considerable increase in global population might be made tolerable [1], in the attempt to mitigate the increasingly negative impact of humans on the planet's resources. The 17 SDGs focus on three primary areas requiring intervention: environment, economy and society. In this paper we will turn our attention to the fourth objective of sustainable development (SD Goal number 4), namely "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all", an objective that we believe is extremely important from the perspective of recent evolutions in the knowledge society. Moreover, our analysis has a particular focus on the public administration sector, as public institutions provide the necessary legal framework for performing the educational process, as well as the restrictions that ensure the sustainable development of the society. As such, the employees therein should have the best understanding of the changes that take place and their impact on the future of communities. They will not be able to promote sustainable development unless they have sufficient skills and knowledge on sustainability [2,3]. These are ensured via engagement in the lifelong learning (LLL) process and, more specifically, via a component under the name of Education for Sustainable Development (ESD). The employees' wish to perfect their skills on an on-going basis is influenced, however, by a wide variety of factors—such as their actual workplace conditions, namely the level of computerization in the institutions where they work, their

level of workplace satisfaction, access to refresher courses whether enabled or not by the employer institutions, potential benefits that could be obtained upon attending such courses—most of which are correlated with their age, training and experience.

According to Reference [4], this is the age of LLL. Starting from this statement and focusing on the strategic role of public administration employees (education, healthcare, financial administrations, city halls, etc.) in supporting this process, this work aims to analyse on the one hand the degree of digital maturity of public institutions in Romania, and on the other hand the interest of employees in such institutions to engage in ESD in relationship with the following disjunct behavioural/emotional states: Disappointment, Conflicts, Satisfaction/Contentment, Doubt, Exhaustion, Attachment. This section goes on to introduce the basic concepts of the study, namely LLL and ESD, as well as the necessity for public institutions to incentivize employees to engage in such processes, while the subsequent sections present the results of the study conducted in institutions pertaining to public administrations in Romania.

1.1. Lifelong Learning

Continuous learning or lifelong learning are by no means novelty concepts. The first occurrences thereof were recorded in the context of the educational system reforms in the 1970s, taking forms such as permanent education (introduced by UNESCO [5]) or recurrent education (introduced by OECD [6]). In a report published by OECD (1996) titled *Lifelong learning for all*, LLL, is seen as a natural result of economic and social changes, an investment in human capital to improve the capacity of individuals, families, workplaces and communities to continuously adapt and renew [7]. Over time, the concept of LLL and its implementation method have evolved, focusing on continuing the training process after finishing school (around the age of 18 or 21 years old) and throughout one's life. LLL aimed "to raise the social participation in broad parts of the world" [8], focusing on "training for the new economy" and "adapting to the changing society" [9–11]. A major moment in the evolution and re-affirmation of the concept was the publishing of *A Memorandum on Lifelong Learning* (2000) by the European Commission, which assigned two aims for LLL: "promoting active citizenship and promoting employability" [12]. The memorandum discussed the expanding role of non-formal and informal education for individual evolution, without mitigating the importance of formal learning. The three forms of learning complement each other, and they should be approached and mixed taking into consideration the moment, objectives and relevant field of learning. The Memorandum still remains the most important in terms of reflecting the European Union's (EU) attitude towards LLL. Over the last decades, LLL was constantly conceptualized and analysed, as a result of intensive technological, social and economic changes. Although information has become more widely available, readily storable and useable, as well as more comprehensive, it does have a "shelf life", a short-term usability. In the current extremely dynamic context in terms of information overload, knowledge becomes obsolete quite rapidly, and people have to update it, and constantly adapt their skills and abilities for the purpose of solving immediate issues. As a result, people have to engage in a process of continuous vocational and professional development [13].

The fundamental premise of LLL is the low feasibility of traditional education, which is unable to provide students in the formal school or university education framework with all the necessary knowledge, skills and abilities they require in order to succeed throughout their lives. Per a traditional approach, the EU defines lifelong learning as "all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective" [14]. The same document mentions the following characteristics of LLL: (1) encompasses the whole spectrum of formal, non-formal and informal learning, (2) addresses objectives such as those related to active citizenship, personal fulfillment, social inclusion and employment, and (3) is based on principles such as learner-centricity, the importance of equal opportunities and the quality and relevance of learning opportunities. In Reference [15] (p. 134), a more comprehensive definition is offered, LLL being seen as "the combination of processes

throughout a lifetime whereby the whole person—body (genetic, physical and biological) and mind (knowledge, skills, attitudes, values, emotions, beliefs and senses)—experiences social situations, the perceived content of which is then transformed cognitively, emotionally or practically (or through any combination) and integrated into the individual person’s biography resulting in a continually changing (or more experienced) person”.

1.2. The Need for Lifelong Learning. An Approach from the Point of View of Sociology in Education

According to Reference [16], LLL is “an essential challenge for inventing the future of our societies; it is a necessity rather than a possibility or a luxury to be considered”. Continuing learning is currently necessary in all lines of activity and across hierarchy levels. Reference [17] defines LLL from a psychological perspective: the concept “combines existing theories and models under a lifespan perspective and provides relevance from both societal and research perspectives—in particular concerning educational psychology, developmental psychology and organisational psychology”. In Reference [18], three different motivations of LLL are identified: (1) for economic progress and development; (2) for personal development and fulfillment; and (3) for social inclusiveness and democratic understanding and activity.

However, the motivations for LLL are not exclusively voluntary, they are not generated only by the citizens’ wish to hone their skills in a particular field or to adapt to incoming changes. LLL is often required in the labour market upon disappearance of certain jobs and emergence of other new ones that require skills that differ from workers’ initial training. In Reference [19], “digitalisation is seen as a key influence on the future of work over the next decades”. The report estimates that more than 9% of existing jobs across member states can be fully automated, with human individuals being exposed to the risk of replacement, while upwards of 25% of all jobs will change in terms of task performance by individuals. In Reference [1], after a synthesis of data from various studies, the authors estimate that approximately half of the current jobs will be significantly influenced by digitalisation. This trend will neither affect solely low qualification, low-paying jobs, nor only industry-related jobs. For instance, for communication-based jobs (such as the majority of public sector jobs), the scenarios presented in References [20,21] mention the potential replacement of human individuals by chatbots/social bots. Risk factors associated with digitalisation include the dependence on explicit and widely-available knowledge, repetitive tasks, manual data transfers, the existence of several employees performing similar jobs or the possibility to outsource the job, to name but a few. The pressure exerted by automation and digitalisation is not naturally absorbed at the educational sector or organisation level, which Reference [22] describes as rather past-oriented, conveying and using obsolete information that is inert compared to innovation. Moreover, in References [23–25] is shown that individuals that cannot develop high-level skills, cannot cope with the pressure of using Information and Communication Technologies (ICT) in the workplace and are not sufficiently autonomous feel threatened, insecure and confused, which results in their failure to carry out their job duties and even quitting their jobs.

It is also useful to analyse LLL processes in the light of sociology in education. From the sociocultural point of view, learning cannot be separated by the context in which it takes place, being dependent on the interaction between the learner and the social/working environment [26]. In a particular context, learning processes are affected by tensions, contestation, and resistance. Critical participatory design of LLL processes is needed in order to respond to the real interests of learners. End users’ perception, needs and values have to be identified, and educational offerings should be built with those findings as strong foundations [27].

Within the sociology of education field, digital technology is beginning to become a serious topic of interest. The increased use of ICT in learning and their continuous availability generates new concerns. For example, employers can pressure employers to use them at home, to the detriment of their personal and family lives. Additionally, digital education requires increased levels of self-responsibility, determination and control, which are too often taken for granted, in reality being hard to achieve [27].

From the sociological point of view, it is stated that technology-based learning should not be perceived as “detached from the [spatial] conditions of common locality” [28], (p. 219).

1.3. Education for Sustainable Development

The success of LLL depends on the utility of the information and knowledge acquired reported to the regional and global socio-economic context, both upon acquiring same and in terms of the future. Per this vision, ESD is a major component of LLL. It was first mentioned in Agenda 21 of the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 and over time it has become a comprehensive and integrating modern concept that refers to the power of education to participate in creating an optimal future for the human race. The UN General Assembly declared 2005–2014 the Decade of Education for Sustainable Development (UNDESD). Coordinated by UNESCO, the UNDESD emphasized education as a premise for individual and social development in the context of sustainability. The assimilation of ESD to LLL aims to strike a balance between human and economic well-being and cultural traditions and respect for the environment [29]. ESD, also known as sustainability literacy, provides individuals with the necessary knowledge, skills and motivation to successfully face contemporary challenges [30]. Of the ESD objectives mentioned by References [31,32] the following are relevant for the theme of this paper: to use a variety of teaching techniques that promote active (participatory), reflective, cooperative and experience-based learning, that can develop superior thinking skills; local relevance and cultural insertion of the methods being used; blending formal, non-formal and informal education, interdisciplinarity and the capacity to support labour force adaptability to the constant changes within organisations. ESD can be employed to achieve long-term cooperation habits, consistent knowledge sharing, creation of common or complementary skills, which are major factors in building and reinforcing sustainable digital ecosystems [33].

One of the central premises for the development of ESD is access to education and the individuals' capacity to engage in training and learning, for the purpose of developing skills such as: anticipation, interdisciplinarity, diversity of perspectives, working with incomplete or complex information, participation in sustainable development processes, cooperation, individual decision-making capacities, empathy, solidarity, and self-motivation [31,34,35]. Given that self-organising, self-determination and project-based work capacities are essential in forming these skills, the employees' training becomes an on-going need [36].

The primary facilitator for adopting and applying the aforementioned concepts and of the practices and principles associated thereto is the development of Information and Communication Technologies (ICTs) and their world-wide expansion. They facilitate access to information independent of geographical area and field of interest, having a major contribution in developing the skills determined as ESD objectives. Education is influenced by these technologies for delivering educational programs and for instructional design [13] across all levels of education. In universities, digitalisation helps students to self-organise learning processes, which allows them to have enhanced levels of autonomy and transforming educators into facilitators [23]. Moreover, digitalisation allows for knowledge sharing, both inside and outside the organisation [36].

Sustainable development and real and active involvement in the future development needs new and creative skills and competences. In 2005, OECD identified the following three competence categories as relevant in the field of sustainable development: (1) interactive use of media and methods; (2) interacting in socially heterogeneous groups; (3) acting autonomously. All these categories can be supported by the use of ICT in ESD. In References [37,38] it is shown that ICT can be used as a tool for (1) interactive communication, (2) interactive generating of knowledge, (3) interactive sharing of knowledge, (4) collaboration with local communities and (5) creating competence in the field of ESD. [39] stresses that ICT tools support ESD in acquiring, processing, presentation and communication of information through the integration of all modern media in formal education (wiki, blog, Web 2.0, Web 3.0, mobile technologies) and the use of social networking, online interactive courses and experiments, online gaming and simulation in self-assisted learning. As these tools have

already become part of everyday life in different countries, helping people to use it in an intelligent and social accepted way is the main challenge on the way to LLL.

The effective and side-effect-free incorporation of ICT in work tasks, without having humans feel alienated and without affecting their future, is an important component of sustainability, and the achievement of this objective requires the creation of digital skills. Public administration is one of the sectors in direct need of such skills.

1.4. The Need for Education for Sustainable Development in the Public Administration Sector

The characteristics of public service have changed over the last years as a result of changing generations (from baby boomers to millennials), the massive implementation of ICT, globalisation and fluidisation of connections between the public and private sectors and non-profit organisations [40].

Public sector management is undergoing continuous changes caused on the one hand by the need to adapt to the economic and technologic evolution, and on the other hand by the citizens' demands to be better informed, for ensuring information transparency and to boost the efficiency of activities conducted by the relevant institutions [41]. As such, the staff employed in public institutions has to accept and engage in continuous improvement, both via programmes designed within the organisations or courses contracted with other institutions or companies, and via informal means. The problems they face are increasingly complex, difficult and global, transcending the limits of simplicity and linearity, as well as national borders [42]. Public administrations are faced with a series of challenges that require continuous development of the knowledge and skills of employees hired in this sector, challenges that are presented below.

Innovation in ICT, the development of smart cities, the fluidity across public, private and non-profit sectors, globalisation, increasing speed of access to information and increasing volumes of available information have changed the characteristics of public services and, implicitly, the training and attitude of the providers thereof. For many domains, the private sector is the source of innovations, but filtering them is achieved via institutions within the public sector. In this category we include organisations that provide invention patenting, regulation frameworks, financing sources, organisations that purchase innovations and provide citizens with access thereto, etc. As a result, the employees in these institutions are often among the first that have to become familiar with the risks and benefits of new technologies, products or services. Along with the citizens, non-governmental organisations and private sector organisations, public institutions play a decisive role in the efficient implementation of programs geared towards mitigating social inequities, in improving the citizens' quality of life via rapid access to high-quality information and services, and thus supporting the evolution of communities [43,44].

Local and central public administrations have to promote sustainable development and limit actions that could lead to natural or social imbalances, to formulate and execute plans reflecting sustainable development principles [45–47]. Their policies are influenced by actual environmental issues, the available resources and the types of decision-making processes they are involved in [48,49]. As such, they must adapt to the dynamics of the business environment in the area they manage, but they also have to be capable to coordinate it so as to evolve in favour of the citizens and for the sake of economic growth and social welfare. Based on the studies that have been conducted, some authors believe the duty of public institution leaders is to take the role of leaders in developing sustainability objectives and to ensure the implementation thereof via management and specific operations [50]. To this end, local administration employees have to have command of sufficient knowledge and information regarding sustainable development, as well as methods to quantify and stimulate the latter. According to Reference [51], approximately two thirds of the 2509 actions identified in Agenda 21 for increasing sustainability require the active engagement of local administrations. The efforts have to be redirected from defining and justifying the concept of sustainability to implementation strategies in order to boost the efficiency and effectiveness of local initiatives [49,50].

Constant information of the public administration staff has to prevent the following issue: there can be no hope for sustainable communities if “the head of municipality and his staff has no knowledge in sustainable development” [52]. Starting from SDGs and specifically SDG 16 on sustainable communities, local administrations must set their own sustainability goals. Their role is essential in conducting actions that ensure the fulfillment of such goals, as many of the activities carried out occur at a regional level and are coordinated by local authorities [53,54]. SDGs 16 focus on improving the standard of living of the population, broad access to education, restoring the natural balance, promoting innovation, equality of chances, elimination of violence, corruption, abuse, etc. Whether directly or indirectly, SDGs requires skills and knowledge in the field of ICT, both for monitoring the value of indicators regarding the environment, investments, pollution, level of education, etc., as well as for implementing the measures required to improve same. In many cases, meeting these goals is achieved via digitalisation of their respective domains. They also require setting up partnerships between governments, the private sector and the civil society, including the transfer of knowledge, continuous training and enabling education for sustainable development. The 17th goal (“Partnership for the goals”) was introduced in order to highlight it even more.

Main topic areas for the role of public administration in achieving SDGs are: “no poverty”, “zero hunger”, “good health and well-being”, “quality education”, “gender equality”, “clean water and sanitation”, “affordable and clean energy”, “decent work and economic growth”, “industries, innovation and infrastructure”, “reduce inequalities”, “sustainable cities and communities”, “responsible consumption and production”, “climate action”, “life below water”, “life on land”, “peace, justice and strong institutions” and “partnerships for the goals” [54]. These initiatives should be provided in the processes of formal, non-formal and informal learning key competences.

The 17 SD goals are overlapping and require joint actions from local, national and international administrations. To address this requirement, their employees must have suitable training levels that they can refine on an on-going basis in accordance with the economic, technologic, social and environmental changes. In EU countries, the methods for the continuous training of public administration employees varies from one country to another [55]. For instance, in France training is performed by specialized institutions or by training providers for professional bodies, and therein per various positions. In Italy, contests are organised in order to recruit the participants for specialized courses, and the filling of certain jobs designed for higher positions is conditional upon the successful completion of such programmes. The method is named “course-contest”. In Ireland, training is encouraged via specialized formal education, while in Finland and the Netherlands the process is entirely liberal, with each institution choosing its own training method and provider function of the goals they pursue. In several countries the training is—at least partially—provided by formal education, such as by Ecole Nationale d’Administration (ENA) in France, the Dutch Institute for Public Administration (PBLQ) in Netherlands, Finnish Institute of Public Management (HAUS) in Finland, Royal Institute of Public Administration (RIPA) in United Kingdom, etc. Even so, the need for public administration personnel training and improvement, as well as the creation of new skills in accordance with current professional training trends and technological development are championed in all EU countries. In this context, professional training is a local and nationwide priority, achieved via both institutional and individual methods [55,56]. It needs to be supported by local, national and international public institutions and authorities, per their affiliation and level of responsibility.

Public administration employees have a dual role as both beneficiary and providers of LLL and ESD. Specialized public institutions are responsible for organising the education system. Their employees not only manage their own knowledge and training levels, but also the training of future generations. In this capacity, they can directly champion and provide material support for sustainable development education via subject matters in formal education contexts. On the other hand, public universities enjoying financial support from the state budget can provide administration employees with courses that can ensure the continuous development of such employees.

1.5. Public Administration in Romania

One of the essential aspects of sustainable development is its political-administrative side, which refers to the mode for streamlining the activities of government institutions in their relationships with citizens, as well as to ensuring democracy in the digital era [57]. The Romanian Government's Strategy for developing the information technology sector states that the administration is the largest producer and user of information, that it is the main link and implicitly the most responsible component in organising and leading the society, called to offer the favourable framework for the development of the community, to ensure high-quality and diversified public services for citizens. The public administration in Romania is currently undergoing a sinuous process of modernisation and restructuring, so as to be in line with the European Union's recommendations in terms of digitalisation as published in documents such as the Digital Agenda for Europe (one of the seven pilot-initiatives of the Europa 2020 Strategy, which is aimed at defining the essential leadership role that the use of ICT will have to play in achieving the European objectives for 2020). To this end, public administration employees must adjust to the requirements of the Agenda for developing digital and inclusion skills, bringing their services closer to the citizen and addressing the aforementioned efficiency, democracy and transparency objectives.

As per the Strategy for professional training 2016–2020, the following training providers contribute to the training of public administration staff [55]:

- Public institutions such as: Institutul Diplomatic Român (Romanian Diplomatic Institute), Institutul Național pentru Cercetare și Formare Culturală (National Institute for Research and Cultural Training), Centrul Național de Pregătire în Statistică (National Training Center in Statistics), etc.;
- Departments with training duties in certain fields of competence within public institutions, such as: Agenția Națională a Funcționarilor Publici (ANFP) (National Agency of Public Administration Employees), Autoritatea Națională pentru Reglementarea și Monitorizarea Achizițiilor Publice (National Authority for Regulating and Monitoring Public Procurement), etc.;
- Private organisations operating in the organisation and conduct of training programmes;
- Higher education institutions;
- Non-governmental organisations such as foundations or associations, e.g.: Institutul Bancar Român (Romanian Banking Institute) or Institutul European din România (Romanian European Institute);
- Labour union organisations, etc.

The institutions and organisations mentioned in the Strategy primarily provide formal education. Its role is very important, and the studies are certified and recognized. They are complete with informal and non-formal education, which can add significant supplementary knowledge the value of which, without registration in official documents, influences the actions and decisions of public administration servants. The success of learning within the public administration essentially depends on the performance of training providers [44], as well as on the self-determined engagement of employees in the learning process.

In regard to public administration employees in Romania, Reference [58] presents a study that aimed to identify the innovator and executant profile characteristics among same. The results of the study confirmed the general cog-in-the-wheel perception of public servants, i.e. effective in performing repetitive tasks, responsible and dutiful. Although we note a certain conformity with their respective work "platoon", public servants have lower rates of ideas and perspectives that are radically different from one other, and they do not really challenge the status quo all that much, they said they were very open to: asking "what if" questions, in order to explore new possibilities and transcending current borders; trends in their field and in other fields, by reading up-to-date books, magazines and blogs; discussions with people from diverse fields, in order to find new ideas; finding solutions to problems by building on ideas from other industries, domains or disciplines. The openness to experiments

and solutions from other fields of activity, attesting to innovative behaviours, occurs as a reaction to barriers in the environment in which they conduct their activity, which is not a fertile, fluid, relaxed and stimulating one, but that by its very limitations forces its employees to break through and bring in good practices from other areas. The need to adapt knowledge via LLL processes is evident and the public servants themselves became aware of it. Additionally, Reference [44] conducted a qualitative research based on interview with experts operating in the Romanian public sector. The study advocates for the need to transfer knowledge inside and outside public institutions, via partnerships with various training providers, particularly universities. It also highlights the need for continuous non-formal education—by employees attending conferences, trainings, and meetings for presenting good practices in using ICT within the public administration.

2. Materials and Methods

Considering the need for the employed staff of public institutions to accept and engage in continuous training, primarily via programmes set within the organisations or via courses contracted with other institutions or companies, as well as considering the observation that Romanian public sector is faced with challenges that require the continuous development of knowledge of the staff employed in this sector, we formulated the following research theme: What is the Romanian public sector employees' perception of LLL as an essential premise of ESD?

To successfully intervene in creating ESD skills in the public sector by the education providers mentioned above, it is necessary to study the following aspects (Research Tasks):

Research Task A: Assessing the maturity of the digital ICT in public administration institutions as a possible pressure factor for adapting the employees' knowledge, skills and abilities to the requirements of increasingly technology-intensive jobs;

Research Task B: Assessing the public sector employees' willingness to increase the adoption of ICT in their work tasks (already automatized at certain degree) in an efficient and side-effect-free manner, without having humans feel alienated and without affecting their future. Here we defined the following hypotheses:

- H1—The relation between public sector employees that are using ICT within their tasks and the institution where they work can fall in one of the following categories: I. Disappointment, II. Conflicts, III. Satisfaction/Contentment, IV. Doubt, V. Exhaustion, VI. Attachment.
- H2—Function of the relevant category, there are differences in the manners in which public sector employees are willing to make additional efforts (participation in training courses/job interviews/professional reconversion—aspects that define the LLL) in order to get higher salaries, become more efficient in the workplace (acquiring skills by participating in courses), being contented in the workplace and working in a friendly environment.

The research was conducted using the questionnaire and aimed to investigate the three aspects presented above. The questionnaire was not previously used but designed expressly for the current research. As such, in order to avoid errors, misunderstandings and other issues, the instrument was pre-tested using a group of 30 individuals one week before making it available to the recipients. Based on the results of the questionnaire pre-test, the instrument was adjusted accordingly. For the purpose of validating the content it was used Cronback's Alpha as the majority of questions used to validate the hypotheses are based on Likert scale. For the analysis referring to Likert scale questions the Cronbach's Alpha value is, in all cases, favourable and indicates a high level of internal consistency (Table 1 –0.852, Table 3 –0.960, Table 4 –0.949).

The instrument was distributed online in the group of students specializing in Public Administration (BA and MA programmes) at the Faculty of Economics and Business Administration with the "Alexandru Ioan Cuza" University of Iași, Romania, we applied an online questionnaire. The questionnaire was available during a 12-month term to a population upwards of 500 potential respondents. Google Docs was the platform used to set up and distribute the questionnaire. The results

were exported in a file that constituted the source of data for analysis and data interpretation in the SPSS 16.0 (2010) programme. The sample compiled comprised 447 answers. A series of filters were applied, removing registrations pertaining to respondents that are not employed and that do not use ICT at work, as well as those that are employed in the private sector. Therefore, the final sample contains 335 answers, comprising only respondents that are employees in the Romanian public sector and that are having their work tasks automatized at different degrees.

Table 1. Association between questions in the questionnaire and the 6 states of the employees (authors' own projection).

No.	Question	Answer *	State of the Employees
Q15	I think the number of requests, problems and complains I am faced with every day is too large compared to initial expectations.	1 2 3 4 5	I. Disappointment
Q18	I am under the impression that the heavy workload mandated at my current job is diminishing the quality of my work.		
Q19	During the work hours I often find myself too busy or even exhausted.		
Q21	There are certain barriers between my workplace and family environment.	1 2 3 4 5	II. Conflicts
Q22	My job responsibilities conflict my responsibilities at home.		
Q23	I cannot manage to complete my home duties because I have to complete my job duties.		
Q16	In general, I like what I do at my current job.	1 2 3 4 5	III. Satisfaction/Contentment
Q17	I am pleased with my current job.		
Q26	I feel I contribute to the welfare of the organisation.		
Q27	In my opinion, I believe I perform my job duties optimally.		
Q28	I have several notable achievements in the workplace.		
Q29	At work, I believe I am efficient in completing my daily tasks.		
Q30	I am afraid that future technological innovations will endanger my job.	1 2 3 4 5	IV. Doubt
Q31	I think other employees could be able to replace me.		
Q32	I am afraid my job will be wiped out.		
Q33	I am afraid my job will be outsourced.		
Q35	In the upcoming year I will take the necessary steps to find a new job.	1 2 3 4 5	V. Exhaustion
Q38	In the upcoming year I will take the necessary steps to find a job outside the ICT domain.		
Q20	I feel pressured by daily activities.		
Q24	Having to go to work every day gives me a state of tension.	1 2 3 4 5	VI. Attachment
Q25	I feel exhausted because of my job.		
Q34	I will stay in my current job for at least one year from here on.	1 2 3 4 5	VI. Attachment
Q36	I will stay in my current job for five years from here on.		
Q37	I will work in the field of ICT (or I will use ICT tools in the workplace) over the next year as well.		
Q39	I will work in the field of ICT (or I will use ICT tools in the workplace) over the next five years.		

* Scale legend (column three): 1 strong agreement, 2 medium agreement, 3 low agreement, 4 disagreement, 5 strong disagreement.

The answers were analysed from a descriptive statistics point of view using the SPSS programme (25.0, IBM Corporation: New York, NY, USA, 2017) using frequency analysis (percentages per category of employee function of their degree of Satisfaction, Disappointment, Exhaustion, Doubt, etc.), descriptive indicators of the central trend, quartiles and dispersion indicators. For the robustness testing aimed at testing the hypotheses, we used student test and chi-square testing (association or independence).

Work phases:

1. For each employee we calculated the mean score per groups of items (the questions) which define the six states (categories of employees), namely: I. Disappointment, II. Conflicts, III. Satisfaction/Contentment, IV. Doubt, V. Exhaustion, VI. Attachment (see Table 1);

2. Then we grouped employees per their mean individual scores and the mean scores achieved per each category of items (corresponding to the six states);

3. We removed from the sample all employees that did not stand out as falling within a single antithetic state (of those analysed). Therefore, 335 respondents/employees remained under analysis;

4. For the purpose of analysing the connections between the degree of I. Disappointment, II. Conflicts, III. Satisfaction/Contentment, IV. Doubt, V. Exhaustion, VI. Attachment of the employees and their intention to participate in LLL processes, we applied association analysis, chi-square/t-test, and correlation analysis.

3. Results

3.1. Level of ICT Maturity in Romanian Public Institutions

A. The assessment of ICT maturity level for an organisation is a subject debated for many years in various papers. In our research endeavour we have consulted several researches [59–61] in our quest to assess the ICT maturity level for the public institutions. The above-mentioned authors portray ICT maturity through a blend of indicators among which are included ICT infrastructure, ICT application, HR level of education, and ICT security and policy. Therefore, in the description of Q12 it were included different level of ICT maturity so that the respondents would best frame their institution into one of the five maturity levels. During pre-testing the questionnaire we paid special attention to this question and several adjustments have been made before making the instrument available to the population.

The evaluation of the level of ICT maturity in Romanian public institutions was performed based on question number Q12 in the questionnaire (see Table 2), and the results prove (see Figure 1) that the Romanian public institutions have a high degree of ICT maturity, as per the statements of the questionnaire participants (in the body of the question were given details on how to estimate the ICT maturity level—presented below Table 2). Therefore, 7% of the respondents said that in their institutions the level of maturity is very high, 20% said it was high and 57% believed it was average. Overall, 84% of respondents (public sector employees in various branches thereof) believe that their employer institution has an average-to-high level of ICT maturity. This aspect allows us to state that, via this level of ICT maturity and through the employee's willing to invest in their career by participating to extra courses, attending conferences and others, the Romanian public sector institutions can support the ESD component of LLL.

Table 2. List of questions defining the concept of ICT maturity and the elements that are closely connected to ICT (authors' own projection).

No.	Question	Answer
Q8	What type of application do you use at work? If more, select the one used mostly	1. ERP **, 2. Developed within my institution, 3. General accounting software, 4. National Integrated System for Public Administration, 5. Other
Q9	What is your highest level of education	1. High-School or less, 2. Associate degree or college, 3. Bachelor's degree, 4. Master's degree, 5. Ph.D.
Q11	What type of equipment are you using at work and how many of each are available in your institution? ***	1. Desktop PC, 2. Portable PC, 3. Tablet PC, 4. Smartphone, 5. Other equipment
Q12	Please specify the level of ICT maturity in your organisation ****	1. very high, 2. high, 3. medium, 4. very low, 5. low, 6. don't know/cannot hierarchize
Q14	Are computers connected into a network and to the Internet?	1. Yes, 2. No, 3. Don't know

** ERP (Enterprise Resource Planning): SAP, Siveco, Microsoft Dynamics, WinMentor Enterprise, etc.; *** for each of the answers (1–5) the respondent was asked about the number. The options were: don't know, between: 1 and 3, 4 and 9, 10 and 15, 16 and 20, 21 and 30, 31 and 50, over 51; **** the question was accompanied by the following description: How fully grown and developed is the organisation in its use of ICT and how fully grown and developed are its various ICT related processes (applications used, equipment available [number and diversity], security and policy, how well trained and educated are your organisation's employees)? Try to answer with the best estimate.

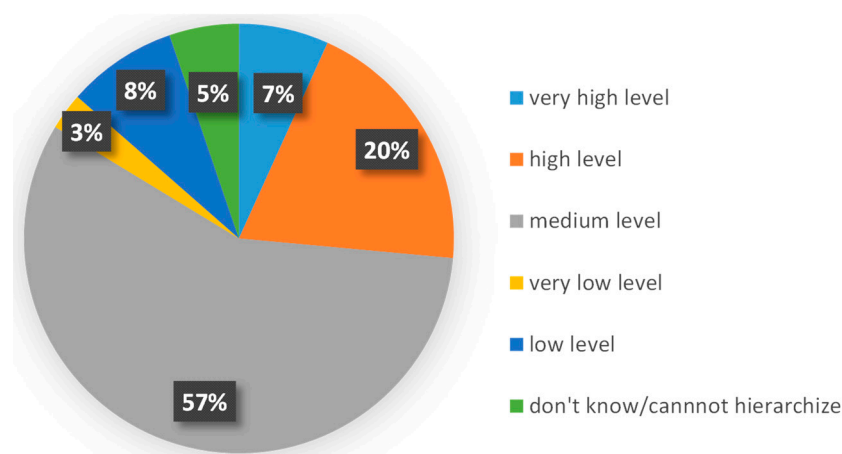


Figure 1. The degree of ICT maturity in the public sector (authors’ own projection).

More support to ICT maturity is illustrated in the analysis pursued in Tables 3 and 4 where are presented the hierarchy made by the respondents towards the organisational issues connected with ICT and related to the job (Table 3) and ICT domains (Table 4). Additionally, in relation to the subject of ICT maturity, based on the responses received, it was our intention to evaluate (in order to sustain the answers given by the respondents to Q12) the digitalisation state for the Romanian public sector and the level of education for this sector’s employee. Therefore, the responses to Q8, Q9, Q11, Q14 (presented in Table 2 and Figure 2) were the primary source of information.

Table 3 presents the results of the first investigation, via a classification of the respondents’ preferences regarding a series of organisational aspects related to the job tasks that are strongly connected to ICT. We notice that the *Economic productivity and reduction of costs resulting from the use of ICT* (with an average of 1772) is deemed the most important, while the next two places are held by *Possibility to recover data in case of a disaster using database-specific technologies* (1.892) and *Reliability and efficiency of activity based on using ICT for everyday tasks* (1.965).

Table 3. Organisational issues related to the job. A hierarchy based on importance as ranked by the respondents (authors’ own projection in SPSS).

Hierarchy Based on Importance	Min.	Max.	Mean	Std. Deviation	Given Values for Each Question
Economic productivity and reduction of costs due to ICT	1.0	5.0	1.772	1.1207	
Possibility to recover data in case of disaster	1.0	5.0	1.892	1.2578	
Reliability and efficiency of ICT	1.0	5.0	1.965	1.1960	
Project management	1.0	5.0	2.000	1.0954	
Data security and confidentiality via ICT	1.0	5.0	2.009	1.3249	1 Very high importance
Knowledge management	1.0	5.0	2.051	1.1536	2 High importance
Alignment between the economic and ICT aspects	1.0	5.0	2.092	1.1823	3 Medium importance
Use of own computer equipment	1.0	5.0	2.117	1.2455	4 Low importance
Management of ICT-ITIL services	1.0	5.0	2.146	1.1809	5 Very low importance
Strategic planning of ICT	1.0	5.0	2.161	1.0995	
Business agility and speed of reaction to market demands	1.0	5.0	2.190	1.2632	
Reduction of ICT costs	1.0	5.0	2.297	1.2345	
Attracting and retaining ICT professionals	1.0	5.0	2.326	1.3726	
ICT innovations that create revenues for organisations	1.0	5.0	2.361	1.2982	

The second analysis, the results of which are presented in Table 4, shows the classification of ICT domains in terms of importance, as determined by public sector employees. We note that employees ascribed the highest importance (with a mean of 2.180) to *Business Intelligence—Analytics*, followed by

Technologies for harnessing datamining data and then by Desktop or Server Virtualisation, with the latter two scoring a 2.206 average.

Table 4. ICT domains. A hierarchy based on importance as ranked by the respondents (authors’ own projection in SPSS).

Hierarchy Based on Importance	Minimum	Maximum	Mean	Std. Deviation	Given Values for Each Question
Business Intelligence–Analytics	1.0	5.0	2.180	1.2832	
Technologies for harnessing datamining data	1.0	5.0	2.206	1.3137	
Desktop or Server Virtualisation	1.0	5.0	2.206	1.2794	
Software as a SaaS service	1.0	5.0	2.301	1.3339	
Telecommunication networks	1.0	5.0	2.329	1.3543	
Collaborative systems and data flow systems	1.0	5.0	2.345	1.2692	1 Very high importance
Mobile and wireless applications	1.0	5.0	2.383	1.3901	2 High importance
Customer-relationship management (CRM)	1.0	5.0	2.396	1.4092	3 Medium importance
Social networks–Social Media	1.0	5.0	2.424	1.3466	4 Low importance
Service-oriented architecture (SOA)	1.0	5.0	2.560	1.3891	5 Very low importance
Cloud computing	1.0	5.0	2.582	1.2559	
BigData systems	1.0	5.0	2.620	1.3644	
ERP integrated business platforms	1.0	5.0	2.633	1.3586	
Development of applications for mobile devices	1.0	5.0	2.759	1.4384	

The classifications made by public sector employees that participated in our study and presented in Tables 3 and 4 evidence their openness to the digitalisation of their activity.

This state of affairs is also justified by the results presented in Figure 2, which illustrate the high level of endowment of public institutions in terms of ICT equipment (Q11) and other elements related to the ICT infrastructure (questions Q8, Q9 and Q14—detailed in Table 2).

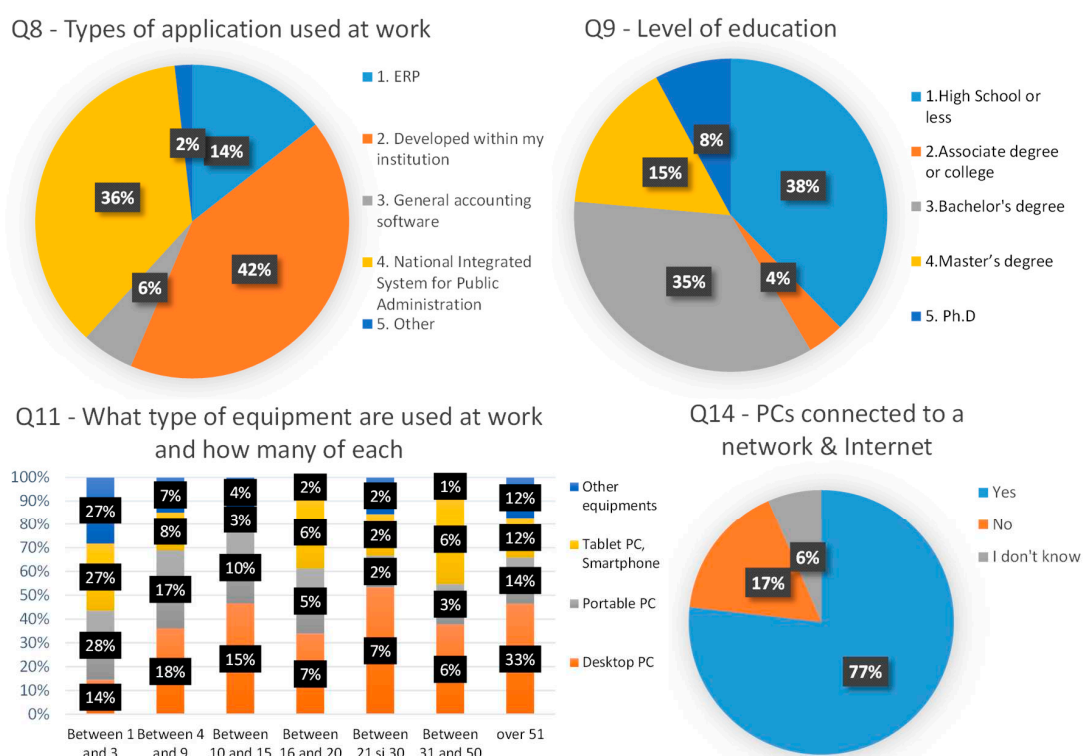


Figure 2. Graphical display of the results to Q8, Q9, Q11, Q14 (authors’ own projection).

Therefore, as per Figure 2, we can depict the ICT digitalisation main characteristics for the Romanian public institutions as such:

- the computer applications developed within the Institution (where the respondents are employed) and the National Integrated System for public sector are the two highest being used;
- a large number of computer devices are available for the purpose of automatizing the daily tasks in the public institutions. Among them, the desktop PCs are the most available followed by the portable computers (laptops) and the mobile equipment (tablet PCs and smartphones);
- the majority of the above-mentioned equipment is connected to a computer network and to the Internet;
- the majority of employees (using the computer applications and infrastructure from above) have a Bachelor's degree and some are more qualified as they possess a Master's degree or a PhD.

The percentages and values within the charts in Figure 2 are significant in favour of Romanian public sector digitalisation and we consider they justify the evaluation made by the respondents regarding their evaluation of ICT maturity level (Q12) presented in Figure 1.

Concurrently, the information in Table 5 reveals that the use of equipment is justified by the high level of automation in the activity of public servants. Therefore, 55.74% of these have more than 50% of their work tasks computerized. As a detail, the majority of people in this latter category use an application developed inside the institution (46.85%). The employees whose activity is computerized at a rate of 26% to 50% primarily use (54.41%) applications other than ERP or ICT products designed for accounting records keeping purposes. The employees whose activity is computerized at a rate of maximum 25% primarily use (43.66%) an application developed inside the institution.

Table 5. Rate of use of a computerized tool in the workplace and type thereof (authors' own projection in SPSS, * significant at 99%).

Question	Answers	Please Estimate How Much You Use Computerized Tools in the Workplace		
		Max. 25%	26 to 50%	Over 50%
		Count	Count	Count
If you use a computerized tool at your current job for performing your daily tasks, mention the relevant category of the computer application:	Other	24	37	50
	ERP (integrated business accounting system: SAP, Siveco, Dynamics, etc.)	12	3	39
	An application developed inside the institution	31	23	81
	Generalized accounting product (Ciel, Saga, Pionier, WinMentor, etc.)	4	5	5
	Total	71	68	175
	% of Grand total	(22.61%)	(21.66%)	(55.73%)
	Chi-square test		22.697	
P-value		0.001 *		

B. Our research endeavour for Research Task B was to check, according with the six states of the employees, the impact of ICT load on their behaviour. Therefore, those employees that are already using ICT (in different proportions) fall within the states: I. Disappointment, II. Conflicts, IV. Doubt, V. Exhaustion are feeling pressure, conflicts, etc., at work and thus they *may* be unwilling/reluctant to adopting ICT as they may consider that such tools are being used by their colleagues and superiors to spy on them/check their actions while at work. Those employees having the opposite states (III. Satisfaction/Contentment, VI. Attachment) *may* react positively to fully adopting ICT as they consider these tools as a real support in being efficient, productive and effective at work. Therefore, this analysis intents to connect the state of the employees with their reluctance or willingness to increase the adoption of ICT at work.

Therefore, in order to assess the public sector employees' willingness to increase the adoption of ICT in their work tasks (already automatize at certain degrees) in an efficient and side-effect-free manner, without having humans feel alienated and without affecting their future, we performed two analyses. The next step of the research entailed testing the study hypotheses.

Firstly, we conducted the analysis per age, sex, sub-sector of activity in the public domain, level of education and labour seniority criteria in order to assess the current status of the employees'

fears/satisfactions/perceptions (as per the six states defined in Table 1) of the public administration sector in respect of their jobs.

The analysis revealed differences between public sector employees (age, sex, sub-sector of activity, level of education and labour seniority) that are using ICT, in various proportions, as part of their work in terms of how employees (in various public sector institutions) perceive the workload (I Disappointment), the presence of certain conflicts between work and personal life (II Conflicts), degree of professional satisfaction (III Satisfaction/Contentment), attachment to the workplace (VI Attachment), insecurity towards the workplace and/or profession (IV Doubt) and physical exhaustion associated with the current job (V Exhaustion) in connection with ICT. We mention that all of these states are ICT related as it was proved before (Research Task A) that the majority of the employees addressed by the research are working in institutions that have an average-to-high level of ICT maturity in a proportion of 77.39% (Table 5, last two columns, the total line). Additionally, within the questions (Table 1) addressed to the respondents and that build each of the six states there are some that directly (e.g. Q30, Q37, Q38, Q39) or indirectly (e.g. Q20, Q27, Q29, Q31, Q33) tackle the impact of ICT on defining them (the states). In this context, in the following lines, an exhaustive analysis will be presented that details the preferences of employees regarding their tasks at work (involving ICT) correlated with their states.

The test for association between the variables defining each of the six states of public sector employees and the analysed variables indicate (as per Table 6) that there are strong associations as in all cases the signification value of the association (Chi-square) testing is below 0.05. As such, we can state that the Age, Sex, Sub-sector of activity, Education and Seniority variables are strongly associated with all six states defining public sector employees, namely Disappointment, Conflicts, Satisfaction, Doubt, Exhaustion, and Attachment. Consequently, the H1 research hypothesis was confirmed: employees do manifest differently in the workplace regarding their willingness to increase the adoption of ICT as part of their daily tasks, function of the six behavioural/emotional states.

Table 6. Results of independence test (chi-square) between the six variables (table header) and the states of the employees (authors' own projection in SPSS, * statistically significant <0.5%).

State of the Employees Statistics		Age	Sex	Sub-Sector of Activity	Education	Labour Seniority
I. Disappointment	Chi-square	81.376	6812	47.788	68.064	68.682
	Df	20	4	16	16	16
	Sig.	0.000 *	0.044 *	0.000 *	0.000 *	0.000 *
II. Conflicts	Chi-square	48.874	12.809	30.041	43.242	52.369
	Df	20	4	16	16	16
	Sig.	0.000 *	0.012 *	0.018 *	0.000 *	0.000 *
III. Satisfaction/Contentment	Chi-square	55.389	31.696	31.287	52.410	43.947
	Df	20	4	16	16	16
	Sig.	0.000 *	0.000 *	0.012 *	0.000 *	0.000 *
IV. Doubt	Chi-square	70.044	12.603	55.102	36.722	62.634
	Df	20	4	16	16	16
	Sig.	0.000 *	0.013 *	0.000 *	0.002 *	0.000 *
V. Exhaustion	Chi-square	33.730	10.240	60.843	51.857	79.900
	Df	20	4	16	16	16
	Sig.	0.028 *	0.037 *	0.000 *	0.000 *	0.000 *
VI. Attachment	Chi-square	114.297	1.441	72.595	46.920	104.799
	Df	20	4	16	16	16
	Sig.	0.000 *	0.837	0.000 *	0.000 *	0.000 *

Further on we will present a synthesis of current trends manifesting for each state (of the employees) and for each five variables (presented in the heading of Table 6) that were tested for association purposes.

Therefore, for State I Disappointment, the analysis of results in the intermediary tables which, for lack of space, we are unable to include in this article, highlight the following general characteristics:

- Age, in the majority of employees, has a rather homogeneous trend in terms of agreement with manifesting some degree of disappointment regarding the current employment: 19–25 years (80.9%), 31–35 years (72.5%), 36–40 years (53.1%), 41–50 years (71.6%), over 51 years (50%). At the opposite pole there is only the category of employees aged between 26 and 30 years old (majority in disagreement by 72.7%) and this situation would be interesting to investigate (in a future study);
- The sex of employees reveals that, although the majority of both sexes agree that they are disappointed with their jobs, men (68.6%) represent a higher, yet not very significant percentage compared to women (60.4%);
- The sub-sector of activity reveals that the employees in certain public sector institutions are disappointed due to certain various pressures that are exercised on them at their jobs. As such, the employees in Education (70.7%), City Halls (61.8%) and Other Institutions (65.9%) assigned majority percentages in terms of agreement, while Financial Administration (53.1%) and Healthcare (52.4%) employees mostly disagree. As such, the employees in the latter two sectors do not appear to be completely frightened neither by the heavy workloads, nor by the number of requests, problems and complaints;
- The education level reveals a certain homogeneity in the perception of disappointment among public sector employees. Thus, across all levels of studies, employees generally agree that they are disappointed with their jobs based on reasons that define state I Disappointment: High-school (76.5%), BA Bachelor Studies (54.6%), MA Masters Studies (56.7%), Vocational school/College (60%), and PhD Doctoral Studies (58.1%);
- Function of seniority in the workforce, a part of public sector employees, namely 0–4 years (64.4%), 10–19 years (61.7%) and 20–29 years (75.3%) form the majority, in terms of agreement with the fact that they are disappointed, while employees with labour seniorities of 5–9 years (60%) and upwards of 50 years (54.2%) are the majority to disagree with being disappointed due to various everyday pressures occurring in the workplace.

As for State II Conflicts (between work activities and family environment), we notice the following patterns:

- Function of age, employees aged 19–25 years (51.1%), 36–40 years (57.3%), 41–50 years (62.7%) and older than 51 years (53.6%) expressed their agreement on the negative influence of professional matters on their private lives, while at the opposite pole (majority to disagree) are employees aged 26–30 years (68.2%) and 31–35 years (62.5%). We believe that the employees that are less affected by work-related issues in their private lives succeed in managing the situation to their advantage, due to the combination of energy and expertise that are specific in the 31–35 years age interval. At that age, humans are in optimal health and rather well rounded in terms of experience;
- Function of sex, women primarily expressed various forms of agreement (55.6%), while the majority of men express their disagreement (50.4%). This situation could be explained by the fact that in the public sector women are more deeply affected by work-related matters in their personal life, while men manage to execute their professional tasks during office hours;
- Function of the sub-sector of activity, we notice that the vast majority of employees expressed their agreement: healthcare 61.9%, education 59.8%, other institutions 59.1%. The only exceptions come from city halls (52%) and financial administrations (65.6%), where the majority of employees disagreed that their work activities affected their private lives;
- The level of education manifests the following patterns: public sector employees with doctoral (64.5%), high-school (62.6%) and MA studies (55%) are the majority to agree with the existence of conflicts between one's personal and professional life, while employees with BA studies (55.5%), and particularly those with vocational school or college studies (80%) are the majority to disagree with the analysed issue;

- Labour seniority reveals that only employees with seniority between 10–19 years (53.9%) and 20–29 years (71.4%) are affected by work-related issues in their family lives, while the remaining employees disagree, namely: 0–4 years (54.8%), 5–9 years (70%) and upwards of 51 years (58.3%), managing to successfully avoid interferences between the two aspects of their lives.

The association between State III Satisfied/Contented (Satisfaction and contentment regarding their job) revealed a majority trend upwards of 95% in terms of agreement with being satisfied with one's job, for all five of the analysed variables (age, sex, seniority, etc.):

- As for the employees' age, we notice that an overwhelming majority of respondents in all age categories (the lowest value being 95%) agree that they feel like they are making their contribution to the welfare of the institution. The only age categories that expressed mild disagreement were employees aged 31–36 years (5%) and 41–50 years (2%);
- The gender variable was also not heterogeneous, as employees—in proportions that are quite similar between them and to the possible maximum—agree that they are satisfied with their job. Therefore, only 0.9% of women and 1.9% of men disagree that they are satisfied with their jobs;
- the sub-sector of activity has a 100% rate of agreement for financial administration, healthcare and other public sector institutions, while mild disagreement regarding the analysed state (Contentment) was only expressed in education (2.2%) and city hall (2%);
- Employees with BA studies are the only category having the lowest rate of agreement (96.6%) with being contented with their jobs. The remaining levels of education reported 100% agreement;
- Seniority in the workforce is as heterogeneous as the other four variables. Therefore, only employees with seniority around 10–19 years (1.4%) and 20–29 years (2.6%) reported agreement rates below 100%.

Association tests regarding State IV Doubt have the following characteristics for public sector employees:

- Age is a homogeneous variable; all age categories express disagreement regarding the fear of being replaced in the workplace or having their jobs wiped out. It is interesting to notice that employees aged between 26–30 years (95.5%) are the category to express most disagreement, while the age category above 51 years (53.6%) expresses the least disagreement;
- The sex variable shows that both women and men disagree that they fear their job being wiped out or outsourced. However, we notice that men (62.9%) have lower rates of disagreement compared to women (70.9%);
- The sub-sector of activity shows a disagreement trend regarding a series of aspects that are characterized as doubt in the workplace. However, we notice significant percentage differences between certain sub-sectors. The highest rates of disagreement are reported in healthcare (90.5%), financial administration (84.4%) and education (73.9%) where employees are probably more difficult to replace given the specifics of their activities;
- The analysis per employees' level of education reveals a general trend for disagreement regarding doubt, yet as expected, the employee category with high-school studies reported the lowest rates of disagreement (53.9%) while the highest rate was reported by employees with BA studies (80.7%);
- Seniority in the workforce shows that employees, irrespective of the number of years they worked, do not have doubts about their jobs, as the majority thereof express disagreement. As such, neither technological innovations nor other reasons will determine them to seek another job. However, as we had expected, we noticed that employees at the beginning of their careers (0–4 years) have the lowest rates of disagreement (63%), while the maximum value for disagreement corresponds to employees with 5–9 years (80%) of seniority.

The analysis of results obtained following association tests between State V Exhaustion and the employees' age, sex, sub-sector of activity, education and seniority in the workforce variables have the following characteristics:

- Function of age, employees report a general trend of disagreement regarding the existence of feelings of pressure, exhaustion in the workplace. However, there is an exception to the general trend, namely employees aged 41–50 years, who rather agree (52%) that going to work causes them to feel tense;
- The sex of employees also reports a general trend of disagreement with the presence of pressure/exhaustion in the workplace. However, we notice that women (53.9%) disagree at lower rates compared to men (58.1%);
- The sub-sector of activity reports yet again a general trend of disagreement, the highest percentage being reported in the financial administration (84.4%). In education, however, employees break with the disagreement trend, as 52.2% thereof agree to the existence of a series of factors that generate an overall state of exhaustion/pressure in the workplace;
- The employees' education reveals an interesting situation: the general trend is for disagreement, and it is worth mentioning that vocational school or college graduate employees agree at a rate of 100%. Employees with high-school education, however, rather agree that they are exhausted in the workplace, the percentage forming the majority (51.3%) and being the only category to report this trend in this study variable;
- The employees' seniority in the workforce has a general trend of disagreement regarding the existence of a state of exhaustion in the workplace. The only category that contradicts the general trend is employees with 20–29 years (62.3%) seniority, who agree they feel the pressure of everyday activities, that they are exhausted or that going to work causes them a sense of tension.

The association tests applied between State VI Attachment/Stability and the age, sex, sub-sector of activity, education and seniority in the workforce variables of public sector employees have the following results:

- The age of the employees presents a general trend of agreement regarding their wish to stay in their current job, but also that they will use computer tools from now on. As such, the highest percentages of agreement are recorded for employees aged between 41–50 years (86.3%), 36–40 years (82%) and 31–35 years (80%), while the lowest rate of agreement was reported in the age category above 51 years (60.7%);
- No differentiation is reported for function of sex, with both women and men agreeing (at rates upwards of 77%) that they will stay in their current jobs;
- The sub-sector of activity presents a general trend of agreement with regard to workplace stability, except for healthcare employees who disagree (61.9%). In the case of employees who tend to agree, we notice that employees in education and in city halls have the highest rates of agreement—upwards of 84%—while public administration employees have equal scores (50% agree and 50% disagree);
- Education levels are a homogeneous variable, with no fundamental differences between employees. As such, the trend is for agreement, and employees with PhD studies and vocational school/college studies fully agree with workplace stability (100%). The lowest percentage of agreement is reported in employees with BA studies (68.1%), as they are probably more open to a new professional opportunity;
- Seniority in the workforce reveals no differences between employees. The majority agree to stability and the opposite extremes are: employees with seniority between 5–9 years (85%) and employees aged over 50 years (54%).

3.2. Employees Wish to Engage in a Lifelong Learning Process

Wishing to test the public sector employees' willingness/wish to engage in an LLL process, we analysed elements connected to this process (participation in training courses, professional reconversion, participation in job interviews) in association with the motivation to go through with them (higher salary, efficiency and contentment in the workplace, working in a friendly, dynamic and

flexible environment). Table 7 presents the questions distributed to respondents and their composition in terms of the two components analysed (motivation and LLL-related elements).

The research hypothesis being tested (H2) in this case is: Function of the respective state they fall in, are there differences in the manner in which public sector employees are willing to make additional efforts (participating in training courses/job interviews/professional reconversion—aspects that define the LLL) to obtain a higher salary, to become more efficient in the workplace (to achieve skills by participating in courses), to be contented with the workplace and to work in a friendly environment?

Table 7. Disposal of the two components (motivation and LLL-related elements) in the questions in the questionnaire.

Motivation for Engaging in an LLL Process	Means of Engaging in LLL	Values	Question No.
Level I: To get a higher salary, would you be willing to:	participate in professional training courses scheduled after work and organised and paid for by your employer?	Yes/No	Q46
	participate in professional training courses scheduled after work and organised and paid for by yourself?	Yes/No	Q47
	participate in job interviews at another institution, even if it entails more effort, particularly in terms of time?	Yes/No	Q52
Level II: To become more efficient in the workplace, would you be willing to:	try professional reconversion with all its implicit pros and cons?	Yes/No	Q53
	participate in professional training courses scheduled after work?	Yes/No	Q49
	accept to do overtime on a daily basis for at least 3 months/year?	Yes/No	Q50
Level III: To be contented in the workplace and work in a friendly, dynamic and flexible environment, would you be willing to:	participate in professional training courses scheduled after work and organised and paid for by yourself?	Yes/No	Q54
	participate in professional training courses scheduled after work and organised and paid for by another institution than the one where you are currently working?	Yes/No	Q55
	participate in job interviews at another institution, even if it entails more effort, particularly in terms of time?	Yes/No	Q56
	try professional reconversion with all its implicit pros and cons?	Yes/No	Q57

To test the research hypothesis (H2) we used the sample described in the methodology section and applied in testing hypothesis H1. The following tests were applied to this sample (335 answers): association (chi-square and t-test) and Spearman correlation (two-dimensional correlation coefficient/bivariate).

Table 8 presents a synthesis of the association testing results, and Table 9 shows the correlation result.

In this section, our intention was to highlight the perception of Romanian public employee's (based on the six states identified in Table 1) support in engaging to ESD as a component of LLL. Therefore, we monitored an analysis of how public sector employees are willing/motivated to make additional efforts (financial, time for engaging in training activities, working overtime) including leaving their comfort zone (changing their current job) in order to access higher-paying jobs, to be contented/happy with their job (professional satisfaction) or to work in a friendly, dynamic and flexible environment. Table 9 presents the results of the analysis. All cases reveal that the significance value of the chi-square test is statistically significant (<0.05) and as a result we can state, with an assumed risk lower than 5%, that there is an association between all the analysed variables.

Table 9 displays the correlation matrix between the six sets of variables. Each random variable (X_i) in the table is correlated with each of the other values in the table (X_j) and this information highlights the pairs that have the highest correlation.

Table 8. Results of the association tests between the six states and the wish to engage in a specific LLL process (authors' own projection in SPSS; * <0.5% significance).

States of the Employees Statistics		Q46	Q47	Q52	Q53	Q49	Q50	Q54	Q55	Q56	Q57
I. Disappointment	Chi-square	23.360	27.033	24.824	18.621	42.511	65.986	18.202	19.769	47.399	62.612
	df	8	8	8	8	8	8	8	8	8	8
	Sig.	0.003 *	0.001 *	0.002 *	0.017 *	0.000 *	0.000 *	0.020 *	0.011 *	0.000 *	0.000 *
II. Conflicts	Chi-square	60.858	25.096	27.142	60.667	26.316	13.504	46.616	28.720	27.196	60.563
	df	8	8	8	8	8	8	8	8	8	8
	Sig.	0.000 *	0.001 *	0.001 *	0.000 *	0.001 *	0.046 *	0.000 *	0.000 *	0.001 *	0.000 *
III. Satisfaction	Chi-square	14.566	30.814	20.642	33.034	21.915	16.347	24.162	15.086	38.671	38.860
	df	8	8	8	8	8	8	8	8	8	8
	Sig.	0.048 *	0.000 *	0.008 *	0.000 *	0.005 *	0.038 *	0.002 *	0.047 *	0.000 *	0.000 *
IV. Doubt	Chi-square	36.426	43.200	21.866	26.714	23.463	27.520	31.715	20.836	41.054	37.141
	df	8	8	8	8	8	8	8	8	8	8
	Sig.	0.000 *	0.000 *	0.005 *	0.001 *	0.003 *	0.001 *	0.000 *	0.008 *	0.000 *	0.000 *
V. Exhaustion	Chi-square	28.335	29.025	15.915	39.484	21.432	26.649	23.535	21.112	29.813	23.117
	df	8	8	8	8	8	8	8	8	8	8
	Sig.	0.000 *	0.000 *	0.044 *	0.000 *	0.006 *	0.001 *	0.003 *	0.007 *	0.000 *	0.003 *
VI. Attachment	Chi-square	23.877	36.385	28.225	15.089	85.293	24.317	24.066	27.576	35.503	32.701
	df	8	8	8	8	8	8	8	8	8	8
	Sig.	0.002 *	0.000 *	0.000 *	0.047 *	0.000 *	0.002 *	0.002 *	0.001 *	0.000 *	0.000 *

Table 9. Results of the correlation between the six states of the employees (authors' own projection in SPSS).

	Xi Xj	I. Disappointment	II. Conflicts	III. Satisfaction/Contentment	IV. Doubt	V. Exhaustion	VI. Attachment
I. Disappointment	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	335					
II. Conflicts	Pearson Correlation	0.476 **	1				
	Sig. (2-tailed)	0.000					
	N	335	335				
III. Satisfaction/Contentment	Pearson Correlation	−0.113 *	−0.167 **	1			
	Sig. (2-tailed)	0.039	0.002				
	N	335	335	335			
IV. Doubt	Pearson Correlation	0.429 **	0.527 **	−0.167 **	1		
	Sig. (2-tailed)	0.000	0.000	0.002			
	N	335	335	335	335		
V. Exhaustion	Pearson Correlation	0.695 **	0.671 **	−0.224 **	0.550 **	1	
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		
	N	335	335	335	335	335	
VI. Attachment	Pearson Correlation	0.240 **	0.109 *	0.172 **	0.363 **	0.225 **	1
	Sig. (2-tailed)	0.000	0.046	0.002	0.000	0.000	
	N	335	335	335	335	335	335

* correlation, ** strong correlation.

As displayed in Table 9 all variables are showing correlation as the p-value is significant in all cases. However, some variables are showing negative association and some display strong correlation (as p-value is <0.000) highlighted with **. Therefore, we can depict two major cases:

Case 1: As expected, there is a positive association between variables:

III. Satisfaction and VI. Attachment, both states being positive

I. Disappointment, II. Conflicts, IV. Doubt, V. Exhaustion, all four being negative states

Case 2: There is a negative correlation manifested between (State III. Satisfaction) and (States I. Disappointment, II. Conflicts, IV. Doubt, V. Exhaustion), but not between VI. Attachment and all the other “negative” states.

It can also be noticed that the strongest correlations are between the negative states of employees V. Exhaustion vs. I. Disappointment (0.695), V. Exhaustion vs. II. Conflicts (0.671), V. Exhaustion vs. IV. Doubt (0.550) and IV. Doubt vs. II. Conflicts (0.527). This shows that these pairs of “negative” states of an employee are strongly correlated.

4. Discussion

In this section we have interpreted all the six states in connection with LLL for the purpose of demonstrating the importance of employees’ acceptance of LLL processes. The approach of the subject in the sociology of education field shows that in a particular context, learning processes are affected by tensions, contestation, and resistance. Critical participatory design of LLL processes is needed in order to respond to the real interests of learners. End users’ perception, needs and values have to be identified, and educational offerings should be built with those findings as strong foundations.

Therefore, the analysis of association test results between the employees’ states (defined in Table 1) and the employees’ motivation to engage in an LLL process reveals the following major trends:

1. Level I tests their wish to engage in LLL motivated by obtaining higher salaries.

The analysis of results regarding employees that identify (agree) with State I (Disappointment) reveals that a majority proportion thereof (54.46%) wish to participate in professional training courses after work (organised and paid by the employer or paid by themselves) (36.64%). There are also majority percentages expressed both against participation in job interviews with another institution (39.94%), as well as against attempting professional reconversion (42.34%). In brief, employees that are disappointed with their jobs wish to engage in LLL by participating in courses paid for by the institution and do not wish to change their jobs.

The majority of employees are those who agree with State II Conflicts; they agree to participate in professional training courses after work (organised and paid for by the employer) at a rate of 45.65%, to participate in courses paid for by themselves (31.23%) and are opposed to both participating in job interviews with another institution (38.14%) and professional reconversion (31%).

In the case of employees who are contented with their jobs (the majority of which are those who agree with State III Contentment), we notice that an overwhelming majority thereof are willing to engage in learning processes and refuse to migrate to another job. Therefore, they wish to participate in professional training courses after work organised and paid for by the employer (89.79%) or paid for by themselves (57.73%) and refuse to participate in job interviews (67.87%), as well as to dabble in professional reconversion (61.56%).

In the case of State IV Doubt, the predominant share goes to those who disagree with this state and they have the following majority features: they wish to participate in professional training courses organised and paid for by the employer (65.47%) or paid for by the employees (42.94%) and reject the idea of participating in job interviews (53.75%), as well as to dabble into professional reconversion (46.55%).

The majority of employees for State V Exhaustion are those who disagree. They wish to participate in professional training courses organised and paid for by the employer (52.25%) or by the employees (34.23%) and wish to participate in neither job interviews (41.74%) nor professional reconversion (33.63%).

State VI Attachment/Stability is dominated by employees that agree thereto. Therefore, an overwhelming number among them are willing to participate in professional training courses organised and paid for by the employer (71.17%) and/or paid for by employees (45.65%) for the sake of higher salaries, and they do not wish—not even for a more attractive salary—to participate in job interviews (49.85%) and to resort to professional reconversion (48.65%).

2. Level II tests the wish to engage in LLL motivated by the wish to become more efficient/to increase the efficiency in the workplace. We will sketch the employee profile per each of the six states based on the two questions applied to respondents.

For State I Disappointed, the majority is formed by employees that agree with this state. Therefore, in respect to the two questions asked via the questionnaire, the majority wish to become efficient by participating in professional training courses after work (55.26%) and do not agree to work overtime daily for at least three months/year (35.44%).

The situation is slightly different in the case of employees falling in State II Conflicts. The majority here are those whose answers agreed with this state and most of them have the following preferences in terms of possibilities for boosting efficiency in the workplace: they wish to participate in professional training courses after work (47.45%) and they also agree to work overtime daily for at least three months/year (27.33%).

The majority of employees categorised under State III Contentment agree with this state. An overwhelming percentage of them (87.69%) wish to increase their efficiency by participating in professional training courses after work, but 51.95% do not find it undesirable to work overtime daily for at least three months/year.

As for State IV Doubt, the majority is employees that disagree with this state. Therefore, the majority of these have the following options regarding the two means of improving efficiency in the workplace: they wish to participate in professional training courses after work (60.06%), while 38.74% do not wish to work overtime daily for at least three months/year.

State V Exhaustion comprises of majority of employees that disagree with this state. The majority of these (51.05%) wish to participate in professional training courses, and 30.63% do not approve of working overtime daily for at least three months/year.

The majority of employees under State VI Attachment/Stability are those who agree with this state. In brief, a majority percentage of these wish to participate in professional training courses after work (72.07%) and, regarding the second analysed aspect (working overtime on a daily basis for at least three months/year), the largest percentage (39.34%) corresponds to those who disagree with that.

3. Level III tests the wish to engage in LLL motivated by the wish to be contented in the workplace and to work in a friendly, dynamic and flexible environment. This level analyses the employees' trend in each of the six states in association with: participation in professional training courses after work organised and paid for by the employee (Q54), participation in professional training courses after work organised and paid for by another institution than the one where the employee is working (Q55), participation in job interviews with another institution (Q56) and the wish to resort to professional reconversion (Q57).

State I Disappointment is predominantly comprised of employees that agree with this state. The majority of these manifest the following trends: they wish to participate in professional training courses after work organised and paid for by the employee (36.64%), they agree to participate in professional training courses after work organised and paid for by another institution than the one where the employee is working (45.05%), they do not agree to participate in job interviews at another institution (34.53%) and they are also not willing to give professional reconversion a try (41.44%). As such, although disappointed, the majority of employees do not wish to change their employer, but they are willing to participate in various types of training courses, showing willingness for LLL.

The majority of employees under State II Conflicts agree to this state. They have the following options regarding the elements under analysis in Level III: they are willing to participate in professional training courses at their own expense (33.03%), to participate in professional training courses after

work organised and paid for by an institution other than the one where they work (39.04%), they do not agree to participate in job interviews at another institution (29.43%) and they are also not interested in professional reconversion (34.83%). Consequently, employees under State II Conflicts are also willing to approach an LLL-type programme and wish to stay loyal to their current employment.

State III Contented is mainly comprised of employees that agree with this state. Wanting to be contented in the workplace and to work in a friendly, dynamic and flexible environment, they feature the following majority proportions: 55.56% wish to finance their participation in professional training courses to be scheduled outside office hours, 71.77% are willing to participate in professional training courses after work organised and paid for by another institution, they do not agree to participate in job interviews at another institution (55.86%) and they are also not interested in professional reconversion (61.56%). It becomes evident that contented employees are also open to LLL and, as expected, they stay loyal to their current jobs.

A majority of the employees under State IV Doubt expressed disagreement towards falling within this category. Their wish to have the satisfaction of a job well done and to work in a friendly and flexible atmosphere reveals the following prevailing features: 35.14% wish to participate in professional training courses after work organised and paid for by the employee, 49.55% are interested in participating in professional training courses after work organised and paid for by another institution than the one where the employee is working, 41.74% do not wish to participate in job interviews and 48.35% do not wish to try professional reconversion. We noted that a majority of the employees under this state, Doubt, are also willing to become actively engaged in an LLL process.

The employees under State V Exhaustion widely disagree with this state. They show interest in engaging in an LLL process primarily as follows:

- They wish to participate in professional training courses after work: organised and paid for by the employee (40.84%) and organised and paid for by an institution other than the one where the employee is working (33.63%);
- They do not wish to participate in job interviews (35.15%), but they are willing to give professional reconversion a try (47.15%).

State VI Attachment/Stability is comprised of employees that predominantly agree with this state. They have the following preference in terms of engagement in an LLL process motivated by the wish to be contented in the workplace and to work in a friendly, dynamic and flexible environment: they wish to participate in professional training courses organised and paid for by the employee (47.15%) and organised and paid for by an institution other than the one where the employee is working (57.96%), but reject the idea of participating in job interviews with other institutions (42.64%) and attempting professional reconversion (45.65%). As a result, the employees showing stability in the workplace wish to stay loyal to their current employer, but they are open to learning even based on self-financing.

The authors should discuss the results and how they can be interpreted in perspective of previous studies and of the working hypotheses. The findings and their implications should be discussed in the broadest context possible. Future research directions may also be highlighted.

5. Conclusions

In a first phase, our study showed a high degree of digitalisation of work tasks in the Romanian public sector. The vast majority of employees use fixed and portable computer devices in their activity and complete their professional tasks using specific software. In our opinion, this high degree of digitalisation pushes for the employees to acquire via LLL the necessary ICT knowledge, skills and abilities in order to harness the presence of the “technological partner” to the maximum in the workplace and to sustainably contribute to their own progress and that of the organisation they work in. Employees associate the use of ICT with increasing economic productivity and reducing costs, they appreciate the contribution of ICT to maintaining data integrity, as well as the contribution of ICT to the reliability and efficiency of activities in the organisation. Considering the importance of

information technology domains in their activity, respondents particularly appreciated areas connected to Analytics, Data Mining technologies and Desktop or Server Virtualisation technologies.

The employees' perception towards increasing the adoption level of ICT within their jobs was categorised in one of the following disjunct behavioural/emotional states: Disappointment, Conflicts, Satisfaction/Contentment, Doubt, Exhaustion, and Attachment. The agreement or disagreement towards falling within one of the aforementioned states, in connection with the increase in the adoption of a higher degree of ICT in their daily tasks, was nuanced function of age, sex, sub-sector of activity, level of education, seniority in the workforce. The study shows that employees that are disappointed with their jobs, as well as those having Conflicts between their personal and professional lives, wish to engage in LLL by participating in courses paid for by the institution and do not wish to change jobs. The overwhelming majority of employees satisfied with their jobs, but also of those in a state of doubt, that are exhausted or stable, are willing to engage in learning processes, namely in courses paid for by the employers or by themselves and refuse to migrate to another job. Employees under all states, whether in larger or smaller proportions, wish to participate in professional training courses after work, but are not willing to work overtime to increase efficiency in the workplace. As for the wish to engage in LLL motivated by increasing the degree of satisfaction with the job and the wish to work in a friendly, dynamic and flexible environment, this is also manifested in employees across all states, primarily for those under Contentment and Stability.

In conclusion, when creating offers for refresher courses by training providers in the public administration area, we recommend intervention via different methods, adapted to the potential states of employees in this sector, in order to ensure sustainability.

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Essay

Optimism of the Will. Antonio Gramsci Takes in Max Weber

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Abstract: Responding to Max Weber’s dour predictions, we enlist Antonio Gramsci’s optimism to suggest how culture can spike development. Weber’s sociological focus took culture to mean shared beliefs and practices. As a culture that derives from the Protestant Ethic, capitalism waged a “war on pleasure.” Weber warned that this unfeeling rationality would generate an “iron cage” to trap our humanity, but his book has been read, paradoxically, as a manual for the lock down. Gramsci, on the contrary, understood culture in its humanistic sense, as a field of aesthetic pleasure, innovation, and debate. For him, a precondition for transformational social change was the broad engagement of masses as empowered collectives (Weber favored charismatic leaders); and pleasure in idiosyncratic forms of artistic as well as rooted expression was the fuel for participating in personal and shared advances. This pleasure in art and collective interpretation contrasts with the exclusionary rituals of commodified pleasure typical of capitalist consumerism. Gramsci’s confidence in the transformational role of creative culture provides a framework for understanding a new wave of inclusive artistic practices that originate in the Global South and that revive the arts as vehicles for active citizenship. Participatory art can re-enchant today’s sorely disenchanted socio-cultural world of mature capitalism.

Keywords: Gramsci; Weber; culture; pleasure; enchantment/disenchantment; social change; Global South

Gladly I serve my friends, but alas I do it with pleasure

Hence I am plagued with doubt that I am not virtuous. (Freidrich Schiller [1], p. 170)

1. Introduction

When José Antonio Abreu launched a project in 1975 that would become world-renowned as *El sistema*, it seemed incredibly ambitious and to some skeptics out of tune with the times. He aimed at social transformation through immersive classical music education for the most vulnerable youth in Caracas [2]. The system of youth orchestras and choirs started with 11 children in a garage at the city limits. Forty years later, the project has been adopted in far-flung countries, and has been established as a reference case of music-based inclusive education [3]. In Venezuela alone, as a state sponsored initiative, as of 2012, it had engaged over 2 million children and enrolled 400,000 at the time [4]. Reverberations inspire more music-based approaches to youth education [5]. Somewhat inevitably, the success breeds controversy [6–9], and doubts regarding the compatibility of Abreu’s model for a range of social environments [10]. It would be frankly difficult to imagine how his system

might avoid controversy and skepticism. For most rational people, the arts produce pleasure—for those who can afford the leisure—but they do not effect substantial, measurable social change.

El sistema confronts that expectation with undeniable practical impact [11]. Its primary objective was not to form professional or even amateur musicians, but rather to develop children's civic and intellectual capacities—along with taste, which was synonymous with judgment for the Enlightenment [12]. Youth development became demonstrably possible in Caracas, despite the violent, dysfunctional, social environment. The admirable results in general education and musical performance, as well as an orientation toward community action and cooperation [13] multiply, because participating youth grow up to become teachers for younger cohorts [14]. Moreover, positive effects in terms of improved self-control and reduced behavioral difficulties for program participants have been found in randomized trials, with particularly relevant effects upon the subgroups of most vulnerable children [15]. *El sistema's* methodology is also used as a reference to develop and test further music-based education programs [16]. When Abreu first applied for support from granting institutions, the officers were dumbfounded. It was a utopian dream that smacked of elitism. Classical music for marginalized youth? Lacking any rational evaluation of the critical social context it purported to address, it seemed deaf to the real needs and demands of its young, under-educated audience. Unsurprisingly, then, Abreu was turned down and had to raise his own funds. What worked against *El sistema's* credibility for “serious” policy support—a continuing challenge, despite the increasing global attention and consensus, the legitimization of outstanding musicians, such as the late Claudio Abbado, and the concession to the Venezuelan government of a 150 million dollar project-specific loan from the Inter-American Development Bank—is exactly the same “X-factor” that makes it so enchanting to the media: The romantic allure, the emotional clutch of transformed life stories lavished on audiences. “Serious” policy has apparently nothing to do with affect. Many other visionary, transformational art projects face the same skepticism from policy makers, often surrendering in defeat [17].

“Disenchantment” has become today a hallmark of policymaking, as a major, undisputed legacy of Max Weber's *The Protestant Ethic and the Spirit of Capitalism* [18], the classic analysis of the origins of capitalism [19]. Radical Protestant culture, for the German sociologist, was a set of beliefs and practices that generated disenchantment as a function of economic growth [20]. The costly paradox, or bad joke, has been that Weber was warning us against the consequences of dour capitalism, which would lock us into an iron cage of rationality without feeling [21]. However, his book has been read for generations as a user's manual for doing just that [22], ironically transforming, entirely beyond Weber's intent, what was an insightful positive analysis of the long-term socio-economic evolution of market capitalism into a normative guide. This is not to say, of course, that the disenchantment of contemporary capitalist societies has been the product of the Weberian vision, but rather that Weber's analysis has been received as the conceptual milestone that eventually canonized a process of cultural change that had been building up for centuries into ‘the’ epitome of modern rationality. To sacrifice pleasure and love for single-minded economic rationality is still unexamined advice to modernizers rather than a danger to avoid through programs of sociability and enjoyment [23]. Weber's socially scientific notion of culture may be, in the above specified sense, part of the problem [24]. As a shared system of life, it seems second nature and determining. Artists and humanists use culture to mean the changeable field of arts: Intentionally destabilizing conventional stipulations of meaning in a social world that otherwise crystallizes into a conceptual habit.

The mutual precaution between policy and pleasure is neither obvious nor inevitable. If the arts can have emotional impact and trigger profound personal commitment by practitioners and audiences, they may well have relevance and value for policymaking. It is true that these dimensions of art need to be broad-based and can be difficult to assess, but there is a growing literature that extensively documents the measurable effects of cultural participation in a variety of criteria, such as psychological well-being [25] and environmental sustainability [26]. More generally, there is clear evidence that artistic experience has profound neuro-biological effects [27] and is positively related to all major facets of human development [28]. Additionally, one of the most conspicuous elements that enables

creative culture to be so deeply beneficial is exactly its capacity for enchantment, its ability to build valuable layers of meaning and to open up uncommon, fascinating perspectives on all aspects of human existence [29]. Failing to appreciate these effects, and their major implications for all kinds of policy, amounts to missing key elements of human nature [30], and thus to making policy decisions that founder on misunderstanding the reasons and motives of people whose behavior the policies hope to address. Despite his intention to sound an anguished alert, Weber has been misread as issuing a call to disenchanting arms. We inherit Weber's impoverished characterization of human nature, which guides today's neoliberal narratives [31], with their focus on the instrumental dimension of rationality [32].

Advocating a new role for cultural initiatives as a transformational social platform amounts to recovering Weber's anguish and questioning the perspective he so unwittingly engendered. Surely, there are elements of his approach that can survive a critical revision. Venturing into the delicate conundrum, we find a prescient ally in Antonio Gramsci. Gramsci knew Weber's work, though his reading is generally overlooked. The purpose of this paper is to revisit the positions Weber and Gramsci took regarding the role of creative culture in social development, in order to issue a new call to action for cultural agents who can contest the disenchantment of contemporary policies. Gramsci's "optimism of the will" ignites civic energy and ingenuity in communities that apparently lost ground in the transition to capitalist modernity. In other words, through Gramsci's selective parsing of Weber, we propose to rethink the role and potential of creative culture as a transformational platform for contemporary policy. We will in particular argue how breathing new life into cultural agency is a corollary to rediscovering pleasure as a principle of human motivation that should be reckoned with in public policy. Without taking pleasure and creativity into account, policy will not be realistic or truly rational. Our paper initiates a recovery project to invite a significant change of hearts and minds. It hopes to open a new dialogue between art and policy that will require (your?) elaboration. This essay, in the strict meaning of 'trying something out', is therefore not an exercise in erudition, but an exploration toward social change. Rather than a familiar sociological approach to describing conditions and limitations, we prefer the humanistic approach of 'close reading' to de-familiarize well-known sources, and so to revive them for thoughtful engagement, otherwise known as 'praxis'.

This essay should not then be regarded as a piece of scholarship about Weber, Gramsci, or both. The body of research and commentary about the work of both authors is large enough to qualify each as a legitimate subfield of socio-political theory. Our primary interest is not to contribute to either one of these bodies of literature. The purpose here is rather to take the dialectical tension between the positions of Weber and Gramsci about the relationship between pleasure and social change as a generative illustration of the dilemma faced today by a social science that aspires to understand the complexity of social phenomena on the one hand, but also to provide a canvas for meaningful social change on the other hand. The gradual turn of Weberian disenchantment from a descriptive to a normative concept, and the fading of the possibility to pursue 'good sense' in the Gramscian meaning of the word through engaged intellectual work appears to us, in a sense, two sides of the same coin. What we aim at, with this essay, is therefore to imagine a possibility of 're-enchanting' our understanding of the limits and possibilities of social change by leveraging upon a rediscovery of the pleasure principle in its public, and not in its private, form: Namely, as a powerful force of collective sense-making—a socio-cognitive and affective attitude that is often found, in its many local variations, in socio-cultural spaces that are peripheral in the power relationships of the current global order [33], and which are generally identified as the 'Global South' [34]. Despite its substantial identification with Africa, most of Latin America, and selected parts of Asia [35], rather than being characterized in literal geographical terms, the term 'Global South' is to be meant in the context of geo-political relations of power [36], both in its 'hard' and 'soft' components, i.e., not only from the point of view of military deterrence and political and economic negotiation power, but also of cultural influence [37]. The Global South has therefore been not only militarily and economically colonized, but also culturally so, and it is almost inevitable that a possible turn of the tide cannot but start in cultural ('soft') terms [38]. At the

same time, it is clear that such a socio-culturally diverse sphere can be characterized as a coherent whole only with respect to power relationships, but certainly not with respect to their socio-cultural identities and specificities. In this regard, one can consider the 're-enchantment' of our notion of social change as a possible, partial inversion of the flow of cultural influence in which some areas of the Global South take a propositional role, and leave the receiver end of the relationship, thus creating a new sense of possibility of re-configuration of the patterns of cultural influence across the Global South itself [39], and toward the Global North [40]. This idea resonates intriguingly with the Gramscian vision of a re-energization of the subaltern through a rediscovery and re-framing of popular culture as a repertory of norms, rituals, and traditions that is dialectically alternative to the hegemonic one [41]. Again, in accord with the Gramscian vision, this process of re-enchantment cannot but be rooted in a transformational view of education as a form of personal and collective empowerment. In this perspective, our paper can be seen as a preliminary reflection toward a rethinking of educational practices as creative articulations of ritualized, collective pleasure that ideally connects to pioneering experiences from the Global South, such as Freire's [42] pedagogy of the oppressed and Boal's [43] legislative theatre.

Inevitably, reasoning in terms of stark contrapositions, such as Global North vs. South, may pave the way to inappropriate generalizations. If the Global North-South divide is mainly construed in terms of a polarization of power relationships from a world order perspective, the picture gets much more complex and nuanced in terms of cultural differentiation. Different peripheries of the world are characterized by specific socio-cultural environments, and certainly not all cultures that belong to the Global South present a similar attitude toward the private vs. public dimension of pleasure, its role in human existence, and its potential as an empowerment resource. So, clearly, this is not our thesis. What we have in mind is that certain experiences have been the product of certain socio-cultural environments of the Global South, and that in a sense, it has been this marginality, with all its difficulties and contradictions, that has created, in some cases, socio-anthropological niches where pleasure-based practices have been cultivated as forms of socially conscious, self-critical personal and community empowerment. Although our emphasis in the paper is on South America, disparate, strongly situated practices of interest are found in different contexts, such as, for instance, in South Africa [44–46]. An awareness of such practices beyond their native contexts is still very fragmentary and incomplete, as they are most likely under-researched and possibly even under-documented. Our emphasis on South America is a recognition for having been the cradle of more conceptually systematic and methodologically articulate statements than in other geo-cultural quadrants of the Global South, and this has also been the cause of the higher visibility and diffusion of, and scholarly attention toward, South American practices and theorizations.

In a sense, then, our comparative reading of Weber vs. Gramsci is an instantiation of the dilemma of imagining the possibility of social change through an engineered process of more or less benevolent manipulation that appeals to the instrumental rationality of humans, or as an emergent process of social mobilization around a collective urge of, and capacity for, sense-making, which is today driven by an unprecedented possibility of massive, decentralized production of cultural content—a scenario that Gramsci would have probably welcomed [47]. We do not think that this dilemma should be seen as an either-or alternative. But the point is that, today, the answer to the dilemma has been placed firmly at the farther end of engineering and instrumental rationality, with a consequent impoverishment of our common understanding of human nature and of its complexities—thereby generating a form of 'common sense' in the Gramscian sense of the word that has paralyzed our capacity to learn from the spheres of human existence that did not qualify as pillars of the hegemonic representational canon of modernity. The consequence has been a narrative where the socio-economically developed, 'disenchanted' end of the spectrum (the Global North) is teaching lessons to the reluctant, under-developed, over-exuberant end (the Global South), about possible pathways to 'disenchantment' as preconditions for economic and social prosperity. It is not hard to read such a narrative in terms of Gramscian hegemonic common sense where the possibility

of a bi-directional exchange of expertise is de facto denied unless intentionally pursued [48], despite the richness of smart adaptations and experimentations that are occurring at the other end [49]. In fact, some of the major social challenges faced today by the Global North may be ultimately traced back to the socio-cultural consequences of living in a disenchanted world, and to the consequent commodification of all aspects of human existence: Intimacy [50]; security [51]; nature [52]; and life itself [53]. It is time for a new synthesis, where both parties can learn from the other, and an appeal to Gramscian praxis to restore a more balanced discourse, through the rediscovery of the public dimension of pleasure in shared, inclusive forms of cultural expression and empowerment as a key societal resource [54], is, in our view, the move to make. The purpose of this paper is to explain why, how, and what for.

2. The Blind Alley of Rational Modernization: Weber's War on Pleasure, and Its Discontents

Pragmatists would say that to forfeit hope in favor of sober realism makes no sense for the living. Forfeiting gives up even more than the possibility of a better future; it also weakens our hold on the trenches of rights and resources that others have already won for us through the struggle and patience that Gramsci called a protracted war of political position [55] (p. 140). Or better, such rights and resources could not have fully been won for us by others if the Gramscian war of position has been successful, as success would mean in this case that intellectuals have given up the privilege to turn into a progressive force, a catalyst of an alternative historical bloc [41]. But, sobriety has been the preferred option for intellectuals during the decades after the heady 1960s, maybe because it sounds smarter to be right about the world as we know it than to speculate on how it could change—or to take the risks to be part of such change, by embracing the responsibilities that come with a commitment to Gramscian 'good sense' as opposed to the 'common sense' of the status quo [56]. No one really doubts the scarcity and unfair suffering in the world, nor the fact that these persistent problems outstrip all known schemes for solving them. To be fair to risk-averse intellectuals, the record of speculations on change during the XX century has often been disappointing if not sometimes alarming. Risk has often failed to deliver desired results and instead has generated unintended consequences borne mostly by already distressed populations [57]. But the understandably dour review does not account for real advances in the politics of racial equality [58], for example—U.S. segregation was legal until the past mid-century; apartheid ruled South Africa later still; and campaigns in women's rights, gay rights, and human rights in general would follow [59]. Too much intellectual sobriety, therefore, can give up healthy stimulation along with the risk of excess [60]; and abstention amounts to refusing agency [61]. So even if pessimism does not usually raise doubts about veracity and evidence, it does give off a familiar air of bad faith. If pessimists acknowledge that suffering is unfair, they also imply an ideal of fairness while "knowing" that the ideal is unattainable and that efforts in that direction do not amount to much. Perhaps pessimists reside comfortably somewhere beyond the trenches that others dig and occupy; they stay on privileged ground high enough above the struggle to tolerate, if not to enjoy, the stubbornly uneven distribution of rights and resources [62].

Gramsci's political optimism does double duty during the terrible years of fascist rule while he wrote from prison (1926–1937) to a once heroic Italian Communist Party now decimated and defensive [63]. One duty was to interrupt the pessimism that kept the defeated communists from thinking ahead. The other was to identify and forswear the ways in which abstract or "scientific" reason had led the movement astray. Gramsci's *Prison Notebooks* address the left's understandable despair after having lost so much political ground so quickly. The unprecedented carnage of WWI, when one month of battle in 1916 saw 70,000 Italian soldiers die and twice as many wounded, had accelerated communist organizing and seemed to usher in a new social order. Gramsci could point to Russia where the communists had taken advantage of the same moment of crisis to turn the guns of imperialist war on the bosses at home. Lenin sidestepped the economic assumptions about necessary stages of development in order to provoke a political revolution that standard Marxism could not have predicted. "The Russian Bolshevik communists labored for eight months to broadcast and concretize

their slogan—'All power to the Soviets'—and the Russian workers had been familiar with the Soviets since 1905. Italian communists must treasure this Russian experience and economize on time and effort." ([55], p. 82). By the time Gramsci writes this in 1919, the moment of inter-imperial war had passed through Italy without creating a coordinated response from the left. The work of coordination was still to be done, and it would take time to prepare the ideological and social groundwork for political revolution in a republic, like Italy, so newly put together and so dangerously divided between the North and South. That work of consolidation and communication across social classes and between geo-economic regions would constitute a cultural path toward revolution for Italy. Cultural revolution (instead of the economic path that counted on advanced stages of industrial development, and alongside the political path that Russia had blazed) would make communist society achievable in an uneven country, like Italy. Writing from prison, hardly knowing how his *Notebooks* might survive censorship and confiscation, Gramsci continued to enjoy the work of enlisting virtual readers as comrades in education, literary criticism, philosophy, journalism, and other humanist activities for an exhilarating cultural overhaul that would amount to revolution.

Taking pleasure in commitments sounds like bad advice, however, if you take to heart Max Weber's formulation of how progress is achieved in the modern world. Development does not abide pleasure, Weber was sure in *The Protestant Ethic and the Spirit of Capitalism*, because pleasure is sinful by definition for radical Protestants, such as Calvinists, and by extension for their secular heirs, practically all of us moderns. It is not that capitalist culture has extricated the pursuit of pleasure [64], but that this pursuit presumably veers away from virtue in classically liberal and neo-liberal development [65]. Generally suspect, personal feelings distract God's devoted stewards from their roles as vehicles of the divine will. Hard work makes good on God's gifts to man, not because man chooses to work (the way Gramsci chose to work), but because man obeys the divine calling. Devotion to work requires self-censure for any subjective sensation, let alone pleasure with its pagan ties to hedonism [66]. Weber certainly did not preach this doctrine of rational emotional restraint in the service of economic gain [67]. We noted that his brilliant reflection on the cultural causes of modern capitalism closes with a worry about the ultimately deadening consequences of economic reason's triumph over affect. The "iron cage" of our "Calvinist" heritage of capitalist modernity first locked out any human faculty to will one's own salvation, and then it left the renegades, the non-believers, and even the devotees of competing religions locked up in a culture of capitalism that frames us all, to the degree that we are modern subjects, in what Weber described as a loveless and disenchanting world that he evidently abhorred [68], but from which he did not see a possible escape [69]. A perspective on modernity that became classic in social theory, from Marx through to Simmel among many others, this link between asceticism and accumulation lasted well past Gramsci's time [70], finally loosening over the past generation as social scientists catch up with him to reclaim culture in collectively constitutive ways [71].

Tragically though, as already remarked, Weber's alarming description of what makes capitalism work practically became an instruction manual for modernization [72]. Largely through Talcott Parsons, Weber's caution about unfeeling rationality softened through the American's appreciation for mitigating influences, including cultural values [73]. To Weber's call for re-directing the fate of the modern world away from cold capitalism and increasingly bureaucratized life, Parsons responded by qualifying the alarm [74]. Not only was the baby of capitalism worth saving, its bathwater was warmer than Weber had allowed. The adjustment of tone about the terror of capitalist development and the inclusion of humane mitigating factors amounted to an effective endorsement and recommendation for the rational development of society [75].

Weber used to quote the wise sayings of Ben Franklin, a lapsed Calvinist, but still ardent worker. "Time is Money" was a favorite. The consistent admonition to turn time into profit and make effort yield measurable gain strikes a chord so helplessly hard-wired for most of Weber's readers that it exercises a descriptive power convincing enough to read like a requirement [76]. Carrot and stick development policies after the Cold War would make democratic progress depend on economic rationality [77]. But Weber knew that one thing had nothing to do with the other; growth does not

follow from beatings [78]. Nevertheless, the Protestant ethic hangs like a pall against pleasure in development projects, a chastising backdrop to blot out almost any joy in personal, professional, or political activity [79]. Decent people do not unduly adorn themselves, or derive too much pleasure from their work and even from their families [80]. They certainly do not celebrate their own participation in public life as if celebration could in any way be linked to responsibility [81]. To imagine that pleasure may be either a cause or an effect of social responsibility, or even both cause and effect in the loopy logic that animates pragmatism and that irritates philosophical orthodoxy, is no doubt a symptom of damnation for the legacy of the Reformed Churches. The pall extends far beyond religious believers; it covers an assortment of miscreants and skeptics who may never even have read Weber, because linking self-denial to social virtue rings true to almost anyone [82]. Even Aristotle complained that pleasure had been so narrowly understood—hijacked by sexuality and physical sensations—that citizens tended to ignore its ethical offices of promoting virtuous behavior [83] (p. 140). The link between austerity and morality is depressingly familiar for concentric circles of modernizers who ripple out from the industrialized centers of the Northern Atlantic Reformed Churches to practically everywhere else by now [84]. Personal indulgences had already been sinful and pleasure had long been the obstacle to responsibility ever since medieval European theological traditions banished pagan cults. The constraints go even further back, at least to the Classical philosophers who advised citizens to seek moderation in all things [85].

We admit to using Weber's formulation as shorthand for a set of deep cultural convictions about the dangers of pleasure. In "a world robbed of gods" [18] (p. 282), Weber gave a compelling account of the rationalization and intellectualization that had disenchanting the world, apparently including himself as victim [86]. Among the intellectual consequences of the mathematical rigor that passed for social science was a narrow economicism that refused to acknowledge the political power and responsibilities associated with subjectivity [87]. Along with other creative thinkers at the turn of the 20th century, Weber objected to the exclusion of feeling and spirituality from the accounts of human development [88]. Given his objections to the evaporation of pleasure, we wonder why he did not engage more proactively the potential of pleasure to save social relationships from the death of cold calculations. Was Weber performing the pessimism and fatalism that he decried? Freud did, for example, engage the power of pleasure when he responded to the same culture that was closing in on Weber [89]. He pursued the effects of pleasure and its repression; he even added a book on jokes that reads like a user's manual. But Weber seems to be trapped in the very iron cage that he denounces. The tight space apparently banished for him the feelings and perspectives that survive "elsewhere" outside the compact culture of Calvinism [90]. Whether or not Weber was a native informant of the Protestant ethic, his gloomy portrait can serve as a point of departure for other, more economically marginal, peoples [91]. In the interstices between capitalist modernity and living otherwise, it may be possible to pursue an alternative route to progress, a route that travels southward towards lesser developed areas than the industrialized regions of Northern Europe and the United States. This alternative route recognizes pleasure as a sign of and stimulus for development [92]; it understands development in broadly social terms rather than in terms that target economic growth as the source of all other advances [93].

To many, Weber is a prophet of doom for a self-destructive Western culture that is about to sacrifice the autonomy of politics to the rationality dictated by economics [94]. The real Weber of course was zealous to preserve the will to make decisions based on ethical ideals and to train, by his own example, an independent faculty of judgment that can discern the difference between political values and scientific information [95]. Alongside his warnings about a social system bound to lose its dynamism, Weber also urged his foreign readers to preserve the remaining opportunities to rescue freedom and democracy from the "iron cage" of a new vassalage to rationality. The possibilities, he warned, depended on exploiting the propitious, but precarious, contingencies, and time was not on the side of political progress, despite what conventional liberals imagined [78]. By 1915, options were still open in Russia and even in the United States. Weber's strong advice was 'to act while it

was still day.” [78] (p. 416). Night was already falling on the more established centers of capital where the advice to act would have been out of place. Deciding to act politically needs the will to act, and the Protestant ethic has no use for free will. The doctrine of pre-destination is a rational result of an absolute dedication to God’s uncompromised glory. Since Calvinists understood God to be the ultimate authority of all creation, to imagine that man has the authority to determine his own salvation or damnation through the free exercise of human will is to conclude, blasphemously for radical rationalists, that God has limited power ([18], p. 100). Instead, man is but a tool of the divine will for Calvin, not even a vessel of the Holy Spirit, as he remained for Lutherans. As a tool, all feelings were met with suspicion since only efficacy in the world was a sign of God’s decision to save a soul ([18], p. 114). Of the many metaphors that devotees have crafted to celebrate His elusive majesty, Calvinists approved of the stern father, but were suspicious of the merciful shepherd, not to mention the scandal of the loving husband [96].

Weber drew Gramsci’s admiration, somewhat against the grain of Weber’s work. They shared some common ground as skeptics of scientific solutions for society, and Gramsci hoped to cultivate more ground by adapting aspects of *The Protestant Ethic* for Italy [97]. Both were convinced that human subjectivity, experienced collectively as a national culture or the life of the spirit, amounted to much more than super-structural or epiphenomenal corollaries of material conditions. Weber was not shy about rejecting the scientific Marxism that discounted culture [98]. For him, communism and socialism were the most irritating parts of the whole misguided project of positivism to reduce society to mathematically predictable patterns [99]. But Gramsci risked his hard-won credentials as Italy’s leading Marxist thinker by arguing against economic determinism and defending culture as a decisive force in the progress of history [100]. Weber was an unorthodox ally here, both because Gramsci enlisted the anti-Marxist to support a revolutionary program and because the support he wanted was for inculcating in Italy the hard work, dedication, and disenchantment that Weber identified with the Calvinist ethic he so critically portrayed [101].

Like the Brazilian cultural “cannibals” who consume First World books and their authors despite the indifference or disdain those authors may show to their culturally marginal Latin American fans [102,103], Gramsci fed on Weber [104]. Far enough away from the excesses of discipline and disenchantment in industrialized Europe and North America, Gramsci was free from Weber’s worries about the crippling consequences of the Protestant ethic. Italy still needed more discipline and less superstition [55] (pp. 94, 118, 121). So, Gramsci took Weber in, digesting the useful elements, but refusing the poisonous pessimism that led to desperate recommendations for charismatic leaders [105]. By suggesting how Gramsci cannibalized Weber, we hope to make more visible a path of scholarship and corollary social interventions that develop beyond the tight spot of Weber’s legacy [106]. As a first move, inspired by Gramsci’s own practice of poaching the nourishing meat of Weber’s matter, but leaving the heavy casing aside—and also at a safe historical distance from Marxist programs—we will be claiming Gramsci as the patron saint for contemporary cultural agents [107]. His contributions for the social ripple effects of art (i.e., his cultural innovation) do not need to collapse culture into the corporatist or strictly group-based activities that generally characterize his proposals [108]. Those proposals show the kind of contradiction he identified or suspected in any historical moment [55] (p. 393). As a Marxist, Gramsci could not easily have theorized revolution from individual changes of heart; instead, the agent of change for him was the class, or the bloc [109]. But as a humanist (philosopher, art critic), his innovation was to privilege culture—over economics and politics—as the medium for change [110]. That meant listening to what Ranajit Guha [111] would call “the small voices,” putting individual taste or judgment above the predictably convergent answers that come from mathematics, or “scientific” economics. In the culturally determining field of education, therefore, Gramsci warned against the cult of technical training that curbs the imagination to arrive at correct answers [112]. Instead, he endorsed the humanities (he attended university classes in philology and was a trained journalist), specifically literary interpretation because it “arrives at a historical judgment or a judgment of taste, in which nuances, “unique and individualized” expressiveness, prevail.” [55] (p. 377).

The preference for right answers prevailed, nevertheless, not only in ‘scientific Marxism,’ despite the sideline of the Frankfurt school, but also as a brand of economicism in capitalist countries. An effect of this Weberian legacy on humanists for the last couple of generations, or at least a trend that resonates with the protestant ethic, has been to identify dispassionate criticism and pessimism with serious scholarship [113]. The challenge is now to rededicate humanistic scholarship towards constructive engagements [114]. Engagement is vital, not only because the world is in need of any and all the social development we can collectively muster, but also because those of us who still have enough faith in the humanities to dedicate teaching careers, sleepless nights of research and reflection, and often our own limited financial resources to the study of art might want to take account of the pessimistic effects in our field of what Weber called the Protestant ethic.

3. Reformation, Latin Style

A British journalist recently asked Antanas Mockus if he thought that a Mahatma Gandhi would be successful in Latin America. “He’d have to be a lot more fun-loving to be effective” was the playful answer [107]. Traditional asceticism may have moved the Hindu masses to hold out for independence in the 1940s, and to some degree self-denial must have moved their Protestant English masters too, but Latin Americans would wonder what disdain for social pleasures had to do with political action. A Latin Gandhi would know that social and political movements thrive on song, spectacle, and rhetorical virtuosity [115]. Gramsci knew that the same taste was true for Italy, and he tried to enlist as many artists and educators, priests and journalists, as would join him to shake the country free of a stagnant culture and to create a vibrant consensus for freedom [116].

A new Reformation would incorporate its Protestant inspiration and all others in a dialectical movement between action and reflection that Gramsci, following Marx and Lenin, called praxis [117]. “The philosophy of praxis presupposes all this cultural past: Renaissance and reformation, German philosophy and the French Revolution, Calvinism and English classical economics, secular liberalism and this historicism which is at the root of the whole modern conception of life.” ([55], p. 351). Gramsci takes advantage of all these historical advances and weaves them into his war of position, a gradual conquest of cultural/ideological ground that begins with the inter-active exchanges inside the party and between leaders and masses [118]. He even recognizes the contributions of “active reactionaries”, such as Benedetto Croce, whom Gramsci credits with forging a new humanist conception of the world “transcending Catholicism and every other mythological religion.” [55] (p. 183). This was especially relevant for Italy’s peasants [119], whom Gramsci described as “superstitious in a pagan sense.” [55] (p. 180). Refusing to dismiss people and positions that were considered class enemies by the radical left, Gramsci would engage the broadest possible range of interlocutors as part of the work to bind the disparate sub-cultures into one national culture. Unafraid that the revolution would be sidetracked by admitting legitimate moves from political competitors, Gramsci hoped to win some of them over; in any case, he admitted useful elements even from recalcitrant opponents, like Croce ([120]; but see the critical remarks of [121]). Once the Moderates, for another example, recognized a point of contact with the communists, engaging in the dynamic of praxis could winnow good ideas from the chaff of tradition and reduce the distance between competitors who share the same goal [122].

For Gramsci, the tireless movement of praxis animated the new Reformation. It may recognize in its enthusiasm something of the religious zeal that inspired earlier movements, and that survived in Sorel’s attempt at a mythopoetic revolution [41], but the modern feeling would be free from other worldly incentives, including the calculating spirit of Calvinism:

“A conception of the philosophy of praxis as a modern popular reformation (since those people who expect a religious reformation in Italy, a new Italian edition of Calvinism, like Mario Missiroli and Co., are living in cloud-cuckooland) was perhaps hinted at by Georges Sorel, but his vision was fragmentary and intellectualistic, because of his kind of Jansenist fury against the squalor of parliamentarism and political parties. Sorel took from Renan the concept of the necessity of an intellectual and moral reformation; he affirmed (in a letter to

Missiroli) that often great historical movements are [not] represented by a modern culture, etc. It seems to me, though, that a conception of this kind is implicit in Sorel when he uses primitive Christianity as a touchstone, in a rather literary way it is true, but nevertheless with more than a grain of truth . . . " [55] (p. 350).

Gramsci entertains a doubt here that repeats in several passages of the *Notebooks*: Is faith a deterrent or a spur to revolution? Does irrational belief sustain or derail the dialectical movement of praxis? In his characteristically supple and pragmatic way, Gramsci will want to know when and for whom the question applies. At what stage of cultural and historical development is faith an option or an obstacle? The question sharpens when Gramsci considers which elements to take in, and which to leave out from the experience of the Protestant Reformation. As a model for the cultural revolution in Italy, the Reformation and its dogma of predetermination raised a conundrum about whether or not human beings have free will: If a revolution is a movement of the people, if they are the authors of the revolution, clearly the people have the will to revolt. And if they are not the authors, if they have no will to revolutionize society, then the revolution is indefensibly neither popular nor democratic—and this is a concern that interestingly occurs in both Gramsci's and Freire's pedagogy: Where is the dividing line between a leadership that facilitates learning, and one that replicates the usual domination scheme [123]? In fact, Gramsci had to admit an enormous difficulty on this count while he was writing from prison. Among the masses and even the leadership there was a general pessimism and unwillingness to make the revolution. Faced with this lack of hope in the struggle, Gramsci resorts to the language of faith and to a provisional doctrine of historical determinism—a doctrine that he had excoriated in "scientific" Marxism for ignoring the possibility of error and the responsibility to act—in order to jump start a dynamic of high expectations and good results that confirm the expectations in a virtuous cycle of hope and achievement. "Real will takes on the garments of an act of faith":

"When you don't have the initiative in the struggle and the struggle itself comes eventually to be identified with a series of defeats, mechanical determinism becomes a tremendous force of moral resistance, of cohesion and of patient and obstinate perseverance. "I have been defeated for the moment, but the tide of history is working for me in the long term." Real will takes on the garments of an act of faith in a certain rationality of history and a primitive and empirical form of impassioned finalism which appears in the role of a substitute for the predestination or Providence of confessional religions." [55] (p. 377).

Turning Weber's worry around to make Calvinism's effect of crimping creativity into an incentive for perseverance, Gramsci offers a reinterpretation for desperate times: "its iron conception of predestination and grace, . . . produces a vast expansion of the spirit of initiative (or becomes the form of this movement)." [55] (p. 338). But he takes care not to let this convenient interpretation take on more importance than would serve the left's long term strategy. So, he continues to translate from the detour through determinism back to human agency. Gramsci adds that "even here" in this irrational transition from despair to progress, the will is at work:

"It should be emphasized, though, that a strong activity of the will is present even here, directly intervening in the "force of circumstance", but only implicitly, and in a veiled and, as it were, shamefaced manner. Consciousness here, therefore, is contradictory and lacking critical unity, etc. But when the 'subaltern' becomes directive and responsible for the economic activity of the masses, mechanicism at a certain point becomes an imminent danger and a revision must take place in modes of thinking because a change has taken place in the social mode of existence." [55] (pp. 336–337).

Therefore, Gramsci commissions a "funeral oration" for the fatalistic conception of praxis. The ceremonial speech would compare mechanistic Marxism to the theory of predestination and

grace for the beginnings of the modern world, “emphasizing its usefulness for a certain period of history, but precisely for this reason underlining the need to bury it with all due honours.” [55] (p. 343).

The reader will sense Gramsci’s equivocation about when to bury blind faith. His strategic defense of belief is more than a rhetorical gesture. How else do we engage masses of people who do not yet have a long historical perspective on change? “Is it possible that ‘formally’ a new conception can present itself in a guise other than the crude, unsophisticated version of the populace? And yet, the historian with the benefit of all necessary perspective, manages to establish and to understand the fact that the beginnings of a new world, rough and jagged though they always are, are better than the passing away of the world in its death-throes and the swan-song that it produces.” [55] (p. 343). During this period of jaggedness in changing systems of belief, Gramsci advocated more serious attention to folklore and superstition [124]. Here, again, the Protestant Reformation is a model of accomplishment, though not of procedure. Whereas the radical Protestants simply banished the popular and mystical elements of religion, communists will have to acknowledge existing culture among the people whom the party would recruit. However inappropriate that culture may seem to leaders on the left, its common sense and folklore are the raw materials to be processed into more advanced stages of religion and of philosophy. “Only in this way will the teaching of folklore be more efficient and really bring about the birth of a new culture among the broad popular masses, so that the separation between modern culture and popular culture will disappear. An activity of this kind, thoroughly carried out, would correspond on the intellectual plane to what the Reformation was in Protestant countries.” [55] (p. 362).

Potentially poisonous elements, such as blind faith, from obsolete or competing political programs, including the Protestant Reformation, are mixed into Gramsci’s proposals, like exotic spices that keep the nourishment appetizing [125]. Or they are like vaccines that acknowledge the power of particular diseases, distill their essence, and then immunize vulnerable subjects by inoculating small and safe doses of the ailment that healthy organisms can incorporate and overcome [126]. Calvinism, for example, supplies the element of grace, skimmed off from the doctrine of predestination. Rationalism, for another example, provides the incentive for discipline in the party and among workers, however damaging its side effects on human sentiment and inter-personal loyalty. And Fordism, the sometimes frightening American avatar of rationalization as mindless factory efficiency, would produce high yields in Europe too, were it not for “the saturation and fossilization of civil service personnel and intellectuals, of clergy and landowners.” [55] (p. 277). Not even the regulation of sexuality for workers seemed entirely misguided to Gramsci, as long as the economically virtuous behavior applied to the bosses too [127]. “The truth is that the new type of man demanded by the rationalization of production and work cannot be developed until the sexual instinct has been suitably regulated and until it too has been rationalized.” [55] (p. 282). Those who dismiss these uneven initiatives as mere failures and cynical uses of Puritanism, Gramsci warned, miss the “unmatched” importance of this “new type of worker and of man.” [55] (p. 290).

Other political alternatives just as unfriendly to the left as Fordism, including Croce’s humanism, could also make valuable contributions to the pragmatic politics that Gramsci advocated. He appreciated Croce’s refutation of the pagan superstitions, which were dissuading peasants from political participation, although he objected to Croce on other serious grounds [128]. His “tendentious” general view of humanistic history exaggerated the role of reform and denied the necessity of revolution, thereby derailing or delaying Italy’s opportunity to make real historical progress [129]. Croce’s defense of “passive revolution—his example is the process of social development in France from 1815 to 1870—does not credit the French Revolution of 1789 as the trigger for the civic and economic gains that followed” [55] (pp. 264–265). Gramsci points out that Croce’s argument for bureaucratic reform indirectly helped to reinforce Fascism, which had anyway claimed continuity with the “historic” right. Croce unwittingly supplied the new movement with an intellectual justification for the passive fascist revolution, which “consisted of the economic structure being transformed in a ‘reformist’ way from an individualistic to a planned economy (command economy)” [55] (p. 265).

Gramsci's eclectic practice of political philosophy goes so far as to admit useful moves even from this arch enemy camp, especially from the Moderate Fascists who were waging a successful contemporary war of position. The cultural revolution from the left would have to emulate that model and supersede it: "This ideology [fascism] thus serves as an element of a 'war of position' in the international economic field (free competition and free exchange here corresponding to the war of movement), just as 'passive revolution' does in the political field." [55] (p. 267).

Of all the political philosophies that Gramsci cleverly pieced together despite the taboos and traditions that distanced some of his readers, probably none is more central than Machiavelli's advice in *The Prince* [130]. Those lessons offer more than particular ingredients for Gramsci to cannibalize; they represent a general recipe for choosing and recombining elements borrowed from others. The book is a model of eclectic and dynamic thinking; it is "not a systematic treatment, but a 'live' work, in which political ideology and political science are fused in the dramatic form of a 'myth'." [55] (p. 238). That is to say, Machiavelli "gave imaginative and artistic form to his conception" by representing the collective will in the person of a condottiere [55] (p. 238). Gramsci notes that Sorel's use of "myth" seems to exemplify Machiavelli's innovation, interpreting a political ideology as a "concrete fantasy" that could animate a collective will among shattered working people. But Gramsci wonders why Sorel stopped short at imagining spontaneous clashes with authorities, limiting his focus to resistance and reaction. Why did he not pursue the myth and the collective will to more constructive stages of concrete political fantasy? [55] (p. 239). Gramsci concludes that behind Sorel's refreshing spontaneity is the familiar dead end of mechanistic ideologies that take progress for granted, as if it were the necessary result of favorable conditions, such as a general strike. Nothing follows necessarily from exciting strikes, as Gramsci knew. The white heat and speed, the charismatic character of leadership that Sorel advocated, create a short lived enthusiasm that wanes before it can forge a new politics. That is why Gramsci interprets the modern prince not as an individual, but as a complex social "organism," the political party which has already begun to represent a collective will ([55], p. 240). (Not a Moses, as Rigoberta Menchú would re-interpret the Old Testament in a similar spirit, but the plural Moseses would lead her people to freedom [131]). Gramsci's pragmatic "prince" does not imagine that cultural or political reform alone can transform society; he understands the project of good government to include necessary connections between "Intellectual and moral reformation . . . with a programme of economic reform—indeed the program of economic reform is precisely the concrete form in which every intellectual and moral reformation presents itself." [55] (p. 243).

Machiavelli's Italian Renaissance manual for effective government was startlingly secular and unsentimental for his time, to be sure, and it continued to represent cool-headed pragmatic thinking for Gramsci's overheated times. The "modern prince" provided Gramsci with a framework for developing sane and supple responses to a range of fanatics, radicals, and mechanistic Marxists whose ready-made answers to daunting questions reduced the work of praxis to a predictable and self-perpetuating system [132]. Against abstract and indefensible speculations about the natural course of progress, Gramsci labored to ground political responsibility in concrete conditions that required the interventions of human agency; without it, the left loses opportunities to advance from one trench of history to the next [133].

4. Parting Ways

To use Weber effectively, Gramsci boiled him down to a few easily digestible bites: (1) The centrality of self-discipline for wealth accumulation; (2) the determining character of culture in society, without discounting economic and political forces; (3) and the insufficiency of positivism, specifically economicism, as descriptions or predictions of human affairs. But significant elements of Weber's project were distasteful to Gramsci, and they evaporate in his reduction of Weber's sociology to yield the stickier stuff of revolution: (1) Weber interprets past history, but Gramsci wants to write its future; (2) Weber separates the dry ingredients of descriptive scholarship from the leaven of prescriptive

politics, and Gramsci mixes the two together in a motion called praxis; (3) While Weber appeals to an elite class of intellectuals, Gramsci caters to a broad public of intellectuals in the making.

Weber, of course, hardly wanted to promote the Puritan prison house that he described, but rather to give a scholarly historical ‘scientific’ account of how radical religious restraint enhanced the rational mores and practices that drove capitalism forward. Analysis should never amount to a recommendation, to follow Weber’s careful distinction between dispassionate scholarship and political engagement, because these activities respond to very different criteria: Observation and intervention. “Certainly, Max Weber regarded the importation of personal value judgments into science as the cardinal sin of modern science.” [78] (p. 418).

“Analyses,” Gramsci objected, “cannot and must not be ends in themselves (unless the intention is merely to write a chapter of past history), but acquire significance only if they serve to justify a particularly practical activity, an initiative of will.” [55] (p. 209). Concrete analyses should identify wedges into apparently static systems by revealing ‘the points of least resistance, at which the force of will can be most fruitfully applied; they suggest immediate tactical operations; they indicate how a campaign of political agitation may best be launched, what language will best be understood by the masses, etc.’ [55] (p. 209). Intellectuals for Gramsci are change agents, unless they serve the dominant bloc, intentionally or unintentionally, by merely accounting for the status quo and ignoring the potential for change ([55], p. 303). Either way for Gramsci, on the left or on the right, intellectuals frame the public’s approach to politics.

Weber, on the other hand, did his very best to keep politics out of his scientific sociology, ‘the politician has to make compromises, the scholar must not justify them.’ [134] (p. 441). The laudable distinction probably impressed Gramsci, who dared to describe social forces in politically unorthodox ways, even if he doubted whether absolute scientific objectivity was possible, let alone desirable for intellectual agents of change. Existing books on intellectuals were almost all of this allegedly disinterested sociological type, less concerned with tracking the contentious forces of power than with describing social phenomena, including the assumed autonomy of intellectuals ([55], pp. 303–304). Even in the soviet hands of Nicolai Bukharin [135], sociology was disappointingly snobbish for Gramsci. Bukharin’s manual does not start as Gramsci thought it should with popular consciousness—common sense and folklore—as the origins of philosophy; instead, it implies that great systems of thought are opposed to those of the popular masses and that philosophy derives from the elite ([55], p. 343). To avoid staying stuck in similar habits, Gramsci’s book on Italian intellectuals would not be a sociology but a “cultural history” (*Kulturgeschichte*) and “political science.”

Weber defended sociology for staying clear of politics [136]. When he identified a pathological inability to feel—anhedonia—as the historically favorable condition for capitalism that distinguished prosperous Protestant from poorer Catholic countries, he did not add recommendations for change [137]. But elsewhere, as a political commentator, Weber gave pointed advice to break the trend of bureaucracy and rationalization and rescue the state’s fragile autonomy, not yet entirely determined by the economy [138]. Whatever his success or failure in keeping sociology free of tendentiousness, his two roles agreed on at least one objective: “As scholar and political thinker he tried to shield society from losing its voluntarism to an over-rationalized state, controlled by the economy” [134] (p. 439). Weber meets Gramsci on this issue of efficacy of the will. Both discounted the debilitating equation between emotional restraint and economic bounty. They could have pointed to the case of England, Marx’s poster-country for industrial capitalism, where a confluence of feeling and prosperity produced Adam Smith’s *Theory of Moral Sentiments* (1759) [139] and *The Wealth of Nations* (1776) [140]. But as soon as they put the will to work, Weber and Gramsci part company.

By 1905, Weber was arguing that capitalism did not depend on liberalism or on democracy; he was ready to jettison them both for the personal authority of a charismatic leader who would best promote development [134] (p. 439), and radiate his superior consciousness to reorganize all spheres of society [99]. A generation later, that elitist option was dangerously embodied in fascist fuehrers for Germany and for Italy. Gramsci deplored charisma as the antithesis to the organic intellectual and to

the collective leadership of the “modern prince.” [55] (pp. 219, 240). Had Weber lived a decade or two beyond 1920, he might have become disenchanted with charismatic leaders along with everything else that brought him to despair. Perhaps he would have felt even more miserably stuck in a historical dead end of modernity, but it is hard to imagine his change of heart about the masses.

Elitism continually characterized Weber’s politics and also his work as a scholar—two roles that were hard to keep separated [141]. Some interference was unavoidable to the degree that science begins with presuppositions: “No science is absolutely free from presuppositions, and no science can prove its fundamental value to the man who rejects these presuppositions.” [142] (p. 153). For Weber, the superior culture of scholars is incommensurable with that of the masses because culture for one is meaningless to the other. Intellectuals desire and develop symbolic solutions to existential quandaries, they want to understand the world, while the masses are moved by “irrational sentiments” that demand material change [99]. Gramsci recognizes in those sentiments the energy for social progress, and he rejects Weber’s unbridgeable class distinction as a non-starter for his own objective to forge unity. Separating political from intellectual work denies the contributions of praxis to refine both doing and thinking; and decoupling mental from manual workers derails the productive assumption that “All men are intellectuals . . . but not all men have in society the function of the intellectuals.” [143] (p. 9). This crucial function is to bridge or to glue divergent sectors of society into one dynamic political party capable of winning hegemony over the current ruling class. That successful class stays in power thanks to its own intellectual auxiliaries who have made even the thought of change unlikely [144].

So, the first moves of an opposition must be to re-think the possibilities for change, and to identify in popular common sense the seeds of all great religions and philosophies, including praxis. At the early stage of revolution that Gramsci addresses, it will need leaders specialized in the conceptual elaboration of ideas, intellectuals whose progress is admittedly slow, nonlinear, and tries the patience of the masses ([55], p. 334). One task for intellectuals is to reframe common sense—from a sense of resignation to the workers’ appreciation for the effects of labor on the material world. Another task will be to identify common sense as the origin of many great religions and philosophies ([55], pp. 331–332). Aristotle was fond of starting there to get to practical wisdom ([83], p. viii). Additionally, Marx makes frequent references to the validity of common sense, not for its content which should change, but for the solid and imperative form it takes ([55], p. 346). Croce endorses common sense too, going so far as to call all men philosophers, but his influential proposition is unclear, says Gramsci, and has no traction to produce a national popular culture ([55], p. 345). A “collective noun” rather than a simple one, common sense represents a variety of world views ([55], p. 327). These can develop into a consistent political philosophy only through serious engagement with one another and with the world, through a dynamic that toggles between interventions and reflections, through praxis [143] (p. 329).

Significantly for an argument bent on revolutionizing material conditions, Gramsci insists on the massive intellectual work to be done—starting with a school curriculum that teaches young people more literature and less math [55] (p. 377). “The lay forces have failed in their historical task as educators and elaborators of the intellect and the moral awareness of the people-nation . . . because they have not known how to elaborate a modern ‘humanism’ able to reach right to the simplest and most uneducated classes.” [55] (p. 369). Surprisingly, for a Marxist thinker, Gramsci grounds his affirmation of universal intellectual capacity on the innate faculty of taste, a familiar grounding for aesthetic rather than political philosophy or psychology: Each person is a “man of taste, participates in a particular conception of the world, has a conscious line of moral conduct, and therefore contributes to sustain a conception of the world or to modify it.” [143] (p. 9). A shared “aesthetic taste” can bind people into a speech community [145]. So, the development of taste accompanies—or even founds—the conversion of common sense into good sense, a formulation, by that way, that Gramsci got from a novel, Manzoni’s *The Betrothed* [146]. He therefore assigns a greater importance to works of literature and other arts than their ideological content, dwelling on the aesthetic forms that train taste. For example, Gramsci is unfriendly to opera, because it breeds a wooden or “bookish” sense of life that reduces flux to easily remembered musical matrices [55] (p. 373). Additionally, he defends the

serial novel, especially the French novels that Italian newspapers were reproducing to support sales, because the French feuilletons represent the “popular-national character” that Italian novels should emulate [55] (pp. 245, 369).

From industrialized Northern Europe, Weber [18] had asked why Protestant countries outstripped Catholic areas in capitalist development. That question begs another: Why was this issue his focus of attention during the years it took to write his book? Some of the motivation to feature a cultural cause for economic dynamism was surely a contestation to the economicism that “scientific” analyses since Marx had made popular [147]. But readers have also noticed that “much of Weber’s sociology is based on an assumption about the cultural superiority of German values.” [148] (p. 76). Weber, it turns out, was an economic nationalist (with suitable qualifications; see [149]). The Protestant project developed from a report he had prepared on the dangers of admitting foreign laborers into Germany [150] (p. 40). Polish and Russian workers were forcing Germans out of the agricultural sector in the East-Elbian region and Weber responded with reasons to reverse the trend. One reason was the superior work habits of German peasants, the “Protestant ethic”, which also inspired capitalist development through its sacrifice or the infinite delay of gratification as a symptom of the “seriousness” that development requires. With its subtle semantic ambiguity, the notion of “seriousness” epitomizes the gulf between Weber’s “cultural” explanation for successful social development and Antonio Gramsci’s advice for achieving desirable change through the “optimism of the will” and the pleasure of acting—as artists do—in the face of possible or probable failure [151]. The comparison is hardly arbitrary, given their contemporary careers and their shared disillusion with positivist rationality, and their respect for culture as a cause of social development.

We do not aspire here to offer a profound, expert reading of Weber’s work. We are rather interested in Weber’s conception of Protestant Culture as a set of ascetic and elitist assumptions that put pleasure and ethics in opposite corners of a contentious ring, as a foundational axiom of productive modernity. Weber was aware of the risk of oversimplification he was facing by choosing to venture into comparative cultural explanations of socio-economic development [152]. His ultimate goal was to upset the materialist determinism that stifled scholarship at the turn of the 20th century, prying open that determinism with a comparative history of religions as causal factors of social development. His subtle argument was that while economics does explain some dimensions of development, it cannot be entirely determining, since a particular religion helped to explain the rise of certain economic forces, which did not develop equally among peoples who practiced other religions [153]. Ironically, given Weber’s iconoclastic project against positivist determinism, our own objective here is iconoclastic against *The Protestant Ethic*; it is to pierce the cultural determinism that follows from conventional readings of the book—also as a consequence of Weber’s own cultural biases [154]. As a scientific thinker, Weber must have inherited more of the Protestant ethic than he admitted. Whereas its adherents maximize material wealth and therefore shun pleasure for the greater glory of God and as a symptom of their own salvation, Weber looks hopelessly on the bitter lives of Puritans and their secular, but equally rational progeny without sharing their convictions or making effective theoretical moves to recover the lost love of life. Pessimism is Weber’s consistently reasonable response to a world disenchanted from the magic and the ritual that looked pagan to Puritans, a world reduced to rational patterns and quantifiable accounts [155]. He saw no capacity or willpower in the general population to re-enchant the world through everyday ingenuity and thereby to renew the love of life through personal or collective creativity. Short of exceptionally talented charismatic leaders (Weber especially liked the Old Testament Prophets), modern subjects were hopelessly gripped by a downward dispirited spiral of ever more limited opportunities for freedom and affect.

The slippage from description to prescription is hardly surprising for sociology, despite Weber’s best non-normative intentions for information and theory building [156]. He refused to pander to the State with pseudo-legitimizing studies of already existing progress [134]. Science was the handmaid of politics, but politics depended on leaders who can process information towards norms and goals that are independent of science. [78,153] among others doubt Weber’s success at absolute

objectivity (see also [157]). His investigation does not slip in the direction of pandering or in the service of a counter-ideology, but in the probably unintended effects of confirming the ethical and economic dangers of pleasure through his pursuit of radical Protestantism as the spirit of capitalism. This conundrum points to the fundamental issue of a socially transformative Gramscian praxis: The necessity of an engaged scholarship [158], whether we reckon the effects of what we write [159]. Research projects are not politically neutral and can instead amount to interventions, though scholars are of course free to choose what they will study. The choice however will make the difference between one intervention and another. Pragmatists, like Rorty, are not shy about asking after the consequences of scholarly choices. He puts the matter quite boldly in the broad company of William James and others who choose to ask only useful questions: “James agreed with John Stuart Mill that the right thing to do, and a fortiori the right belief to acquire, is always the one that will do most for human happiness. So he advocated a utilitarian ethics of belief. James often comes close to saying that *all* questions, including questions about what exists, boil down to questions about what will help create a better world.” [160] (p. 5).

5. The Remains of Reason

The far left asks inflexibly formal questions, Gramsci complained; it refused to take objective situations into account and ignored even the disposition of the masses towards the progress of the party. Whereas Gramsci advocated a protracted campaign of education and interchange between the party’s leadership and the popular classes in order to forge a shared and dynamic national culture worthy of the “modern prince,” the radical left restricted the work of leadership to trained cadres. This vanguard style of politics leads barely integrated masses into programs that follow from established principles ([55], p. 156). It does not factor in the time to work out mistakes, to regroup and adjust to new conditions. Gramsci advised more humility and more time consuming development, especially for organic intellectuals who “develop slowly, far more slowly than any other social group, by their very nature and historical function” to embody tradition and translate one social class to another ([55], p. 184).

It took a long time, for example, before intellectuals understood some aspects of “The Southern Question.” Even after WWI, while the Italian left had stepped up its organizing program during 1919 and managed to ignite the factory worker rebellions of 1920 in Turin that promised to spark revolution throughout Italy, “the southern question” was repressed. How to incorporate masses of peasants who would otherwise remain “a disordered rabble, a tumultuous horde driven to the cruelest barbarities by the unprecedented suffering which are becoming ever more frighteningly evident.” [55] (p. 117). That question would haunt Gramsci in the disastrous aftermath, when big business and government caught the workers and the party leadership off guard and then consolidated into a lasting fascist alliance. He would conclude that the greatest obstacle to effective organizing was an almost blind faith in what passed for scientific Reason as the motor for allegedly inevitable progress. It would, among other things, eliminate the effects of contradictions between workers and peasants. Sometimes this abstract reason—independent of human agency and therefore presumably incapable of error—appeared in the guise of economicism, predicting regular stages of development and struggle whatever the political culture and context. Frustration with economicism is a leitmotif in the *Notebooks*, though economicism’s blindness to subjectivity did not warrant the opposite error of Freudians to attribute causality to psychological forces [99]. Among the critiques that Gramsci levels against the unwarranted faith in market forces is to identify it as a “direct descendant of liberalism.” [55] (p. 210). One casualty of this unmediated confidence in extra-political forces is the left’s sectarianism, fearing compromise, for example, with the Liberals ([55], p. 184), and therefore disabling the work of praxis ([55], p. 220). Not that praxis should concede ideological ground or that it ought to patronize uneducated interlocutors, but that the process of building critical consensus works by stages to refine debates and to include increasingly broader sectors along with their initial world views. Other times abstract reason bears the name of internationalism, impatient with local feelings and practices of belonging ([55], p. 231), which in Italy, were still regional and needed greater national

coordination (through a standard language, for example) to adapt to a still more universal experience of international solidarity ([55], p. 326).

In both cases, the same imperious Reason recalls the specter of the French Revolution in Schiller's [161] *Letters on the Aesthetic Education of Man*. Schiller's recommendation to bypass the bloody earnestness of radicalism is practically a rehearsal for Gramsci's proposal to wage an incremental cultural revolution. Instead of a self-defeating campaign to achieve political freedom by direct aggression, a campaign that left great numbers of potential French citizens without even the right to life, Schiller was sure that an indirect path through the pursuit of beauty and the creation of art would be more effective. While Gramsci would be more sanguine about the bloodletting under the Jacobins, who had to remain firm so as not to commit political suicide, he knew that they were finally too inflexible to make good on their promises ([55], p. 253). Incurably bourgeois, the Jacobins denied workers the right to organize ([55], p. 256). The French Revolution counted as a historical advance, for Gramsci, along with the Protestant Reformation, the Bolshevik Revolution, and other turning points in the progress of freedom. It represented particular advances to be defended and mistakes to be superseded, including the inability to distinguish between ideological consistency and self-destructive sectarianism. Gramsci also knew the trouble that the inflexible far left was making in Italy, both by refusing to ally with other forces and by insisting on the scientific rationality of the economic approach to revolution. That approach would keep Italy waiting perhaps indefinitely until material conditions were ripe for revolution. Even Lenin's political upstaging of economicism in a Russia that did not look ready for communism was unavailable to politically disjointed Italy.

The only way ahead was through gradual cultural reform, a relentless war of position that would shift power from the current hegemonic bloc to a new bloc of the coordinated masses [162]. So, without dismissing or discrediting real warfare in the progress of social revolution, as Schiller did, with hindsight, Gramsci acknowledges the reformist sequels as a war of position to occupy and hold down the trenches that follow from the earlier and more aggressive war of maneuver. It was time that the strategy served the left instead of building only fascism. "In Europe from 1789 to 1870 there was a (political) war of movement in the French Revolution and a long war of position from 1815 to 1870. In the present epoch, the war of movement took place politically from March 1917 to March 1921; this was followed by a war of position whose representative—both practical (for Italy) and ideological (for Europe)—is fascism." [55] (p. 267).

Hard liners would not admit tainted strategies, but both Schiller and Gramsci understood that progress toward freedom is uneven, unorthodox, and risky. Schiller called this experimental process "play," acknowledging that the same materials and circumstances can produce a variety of modern and therefore provisional artistic responses, more or less successful, but not enduring in the sense of classic works of art that ignore the dynamic of changing societies. Gramsci named the dynamic "praxis," a rhythm of creative activity in the world and reflection on that action. Schiller defended the trial and error of making art against the ardent and intolerant rationalists for whom error was punishable by death; and Gramsci took on the 'scientific' materialists for being just as arrogant and sectarian as the Jacobins proved to be. Both identified in the universal faculty that drives the creative process our human capacity to make decisions and therefore to make mistakes. Error preoccupied Gramsci after the chastening defeat in Turin. In 1919, he was still confident that Marxists had the "maieutic" function of history's midwife, critically "biding their time" [55] (p. 85) as new stages unfolded. Though history is a process of development and somewhat unpredictable, "political genius can be recognized precisely by this capacity to master the greatest possible number of concrete conditions necessary and sufficient to . . . anticipate both the immediate and distant future and on the basis of this intuition to prescribe a state's activity and hazard the fortunes of a people." [55] (p. 86). He was also sure that capitalism was mortally wounded by the Great War. "The capitalists have lost their pre-eminence; their freedom is limited; their power is reduced to a minimum . . . The corresponding concentration of the working masses has given the revolutionary proletarian class an unprecedented power." [55] (p. 87). Soon it became clear that neither change had really happened, and Gramsci discovered a new

and troubling dimension of freedom. Recognizing error may seem an inauspicious way to appreciate the agency of human will, but the shift of focus from Marxism's genius for predictions to Marxists' responsibilities for adjusting theory and testing the conditions for intervention liberated Gramsci from the vestiges of theological and other related determinisms. Disenchanted, he will now keep a distance from mechanical historical materialism, which "does not allow for the possibility of error, but assumes that every political act is determined, immediately, by the structure, and therefore as a real and permanent (in the sense of achieved) modification of structure." [55] (p. 191). Blind to the possibility of error, leaders mistake conducive conditions for sure signs of progress, and they miss lessons of history. Gramsci's change of heart made him seek out the secular counsel of Machiavelli [130]. Without perhaps proposing the connection, Gramsci also came into the circle of Schiller and company. Error is the evidence of risk, and of freedom, for aesthetics as well as for politics. In both exercises of creativity and judgment, human decisions about form and value are provisional and retractable. Perhaps this is the boldest and most compelling way to characterize freedom: Its capacity to equivocate and therefore to harbor both dangers and opportunities for repair ([55], p. 191). Somewhat consequently, the familiar inconclusiveness of aesthetic judgment is a sign of its particular rationality [163]. In urgent need of repair, the left that Gramsci represented wondered what prospects there were if abstract mechanical reason continued to lead, with blinders against error, in order to stay on a one lane high road of politics.

Schiller indicted reason's single-minded excesses as barbarism, a charge that Walter Benjamin would repeat on the brink of World War II when he wrote that the history of civilization is also the history of barbarism [164]. The Nazis were of course notoriously rational about forging a heroic history through ethnic and political cleansing [165]. Gramsci worried that the leftist opposition would not go very far toward defending democracy if it shared this inhuman rationality, leaving change to inevitable forces or simply leaving it behind in despair. Both the arrogant and the desperate faces of reason had led to passivity, and yet Gramsci found himself actively writing in prison, where the effort was shortening his own infirm and precarious life. Alongside the pessimism of the intellect he was heartened by a stubborn and irrational "optimism of the will." It goaded him on to think and to write with an evident and paradoxically "disinterested" pleasure, although he could never have admitted this. But since his own pessimistic prospects for the effort did not dissuade him with reasonable objections to futility, the decision to write was somehow purposeful without a purpose. Perhaps he was simply and dutifully taking his own advice, while comrades were crying and cursing their fate in 1920 Turin, to keep a strong heart and a "will as sharp as a sword when the general disillusionment is at its worst." [55] (p. 103). Or had he also come to acknowledge the sheer pleasure of optimism against the odds of success? Pleasure may be the surprising point here, since we so seldom consider it as part of serious work. But when work is freely engaged for no other reason than itself, it is almost by definition an aesthetic experience. Unsolicited and perhaps even purposeless, Gramsci's work participates in some noble and tragic ways in the freedom that Schiller would have associated with play.

6. The Politics of Pleasure: A View from the (Global) South

By contrasting Protestant and Catholic dogma, Weber reminds the reader that self-efficacy had been a value for traditional Christendom long before the Renaissance returned man to the center of artistic and intellectual practices. At the other end of Europe from where Weber wrote about shrinking Puritan souls and declining opportunities for democracy, Gramsci's Catholic and capacious imagination recognized countervailing movements of history. Against the determinism of any kind, religious or rational, he weighed choices at the points where one movement put another into crisis. Preference here does not mean the kind of moral levity or whim that suggests a personal and arbitrary choice; it is a disposition to continued commitment despite the unpromising circumstances. The seriousness of Gramsci's commitments to social progress is undeniable to anyone who knows the bare outlines of his difficult and truncated life. Tireless hard work accompanied the physical pain of his stunted growth and chronic illness since childhood; and work continued to define his life

throughout the disappointments of a marriage interrupted for so long during his prison-shortened life that he never saw his only son. Perhaps even more disappointing were the failed political campaigns throughout the 1920s and into the 1930s. Either the apparently lost political cause or his always precarious health might have been deterrents to the labor of promoting the Italian Communist Party throughout the 1920s and into the 1930s, while he barely survived the harsh conditions of prison. International public pressure finally managed to free him, only months before his weakened body gave out. But Gramsci continued to work on his *Prison Notebooks* until the end, because he chose to do so to develop a new strategy for Italian Communism. That self-willed hard work amounted to producing a pleasure that confirmed his choice to work in a virtuous cycle of willpower and enjoyment. In Gramsci, then, a socially and politically transformational view of pleasure flourishes in the most adverse, and unlikely, existential circumstances.

On the other hand, free will to work is what hard working Puritans lack. There is no legitimate pleasure in their productivity, no matter how industrious and productive God's servants may be. Only God makes decisions for believers in the Reformed Churches, and they would be guilty of blasphemy by presuming to choose work over idleness. The injunction to work was also beyond choice or negotiation in Weber's post-Puritan world. Weber shared a political hope in the human will, the exceptional will of charismatic leaders rather than of collective movements, but as an intellectual, he was generally too pessimistic for the high hopes that kept Gramsci intensely engaged in the pleasurable work on his *Notebooks*. Historical necessity, he knew, is an observation from hindsight rather than a predetermined result of ineluctable forces. Both Weber and Gramsci were critical of the economicism that passed for scientific Marxism at the turn of the 20th century. Economicism amounted to the metaleptic mistake of taking the outcome of historical processes for the implicit destiny and cause of capital's dynamic. But while Weber remained determinist in his cultural critique of capitalism, whereby all of modern humanity ends up in the iron cage of disaffected rationality [166], Gramsci located an escape route from pre-determination by the time that Lenin interrupted the determinist narrative of standard Marxism, which would have delayed the Russian Revolution until the country's economy had matured and begun to decay. This spectacular interruption of Marxian narratives led to Gramsci's reflection on the so-called necessary conditions for revolution and to his conclusion that conditions are created by human actors, not given or secreted by inhuman forces. Lenin provoked an economically premature political revolution, since an anti-capitalist economic upheaval would have been misdirected and out of place in Russia. Additionally, Gramsci proposed a cultural revolution that would win political ground, moving slowly from one entrenched practice to another in a war of positions that avoided direct confrontation with either the powerful economic interests, that had defeated heroic Italian workers in the clashes of the 1920s, or the politics of a fascist state.

Again, a cultural revolution seems an unlikely point of departure for a major social upheaval. Culture occupies a marginal, and chronically questioned, place in the developmental discourse of capitalism. The effects of a Puritanical and principled rejection of the fine arts and of "idle" explorations have been literally chilling, Weber reports, as "asceticism descended like a frost on merry England." [18] (p. 168). Sometimes, nevertheless, the cold shoulder softened to allow cultural goods, such as athletic or aesthetic pleasures, as long as they did not cost any money ([18], p. 170). Therefore, in times of economic constraint in universities and in governmental as well as non-governmental agencies that rarely consider the arts as social resources even in better times, the general joylessness of the Protestant ethic can become literally appalling. Gloomy earnestness will undervalue both the creative spirits who might choose to take on challenges beyond the radical Protestant goal of economic gain. Additionally, close by are the teachers who hope to develop students' moral imagination through creative arts and humanities. It is not the only spirit that animates our university culture—where the Greco-Roman tradition developed into a humanism that delights in the variety of experiences and expressions; but to the extent that Puritanism breathes rational anhedonia into virtually all institutions of capitalist countries, it casts a cold glance on the irrational pursuits of art and interpretation [75]. Humanists are right to worry. It is just that our worry about the pressure to be practical paradoxically feeds the

Protestant presumption that the arts have little to do with social practice. Instead of responding to a Puritan impatience with play and appearances by defending ourselves against the implicit demand to engage productively in the world, we might play with, or deconstruct, the unstable distinctions between making art and making change.

The natural point of departure in this respect is an arts-based politics of pleasure; that is, a sort of conceptual antithesis to the instrumental seriousness of the Puritan rule. The fatal weakness of the Puritan war on pleasure, and Weber is no exception in this regard, lies in its utter lack of curiosity about the role played by pleasure in the shaping of human behavior [167], and of its pathogenic drifts [168]. Pleasure is a key element of behavioral and decision-making functions [169], calibrated through evolution to ensure that animals—including us—stay focused on a range of indispensable functions, such as nutrition, reproduction, rest, and sociality [170]. A war on pleasure is therefore nothing less than a war on human nature, a campaign that cannot be won without sacrificing its own troops. What has been the result of removing pleasure from the foundational capitalist discourse? Perversely, pleasure has been shorn of its “disinterested” freedom and diminished to a commodity, something that capitalism produces and sells [171]. If humans cannot do without pleasure, capitalism can cripple and package it through a social logic of accumulation and exchange [172,173]. As a consequence, pleasure is transformed from a liberating force of creative exploration—the play of trial and error [174] that toggles between individual satisfaction and the common good [175]—to a thing that is indifferent to liberating and communal dimensions [176]. Pleasure devolves, under the force of capital, to a restless endeavor [177] to command social recognition (an effect intensified by online social media; e.g., [178]) as it loses the capacity for free and “purposeless” play [179]. Once framed as a commodity, pleasure offers no respite from other socially “normalized” goods [180] in which materialism destroys well-being [181]. If the “moral” imperative of capitalism is “making the economy work”, consumerism becomes a moral duty [182] and the grammar of desire in the language of consumerism confirms the reproduction of capital [183]. This consumerist grammar re-programs human desire toward a new set of social instincts prompted by carefully designed cues [184]—so that learning the language of capitalist legitimization prepares us to read advertising as information rather than explicit, manipulative neuro-programming. We lack the terms to raise any serious social concern [185] or to inspire corrective policy decisions [186].

In the capitalist *koiné*, pleasure thus resurfaces as another form of commodified labor, subject to the general logic of disenchantment [187]. Additionally, the pursuit of consumerist pleasure becomes one of the most effective ways to achieve social control over individuals and communities, including the commodification of anti-consumerist dissent itself [188]. Shared pleasure is an important factor of social bonding [189], since its constitutional aspects of authenticity, accessibility, and sociality [190] ground the ritual establishment of mutual trust and collective sympathy [191]. But in the capitalist social space, pleasure seeking [192] becomes a powerful means of elitist discrimination [193]. In its capitalist formulation, “pleasure” carries a burden of stringent qualifications: Entitlement to pleasure is now linked to high performative standards, such as physical perfection [194], exclusive and exploitative access [195], and social envy [196]—while remaining indifferent to social consequences [197]. In other words, “pleasure” is now understood as the competitive domination of others [198]. Consequently, its strategic pursuit becomes a formidable driver of consumerist desire, fueled by the voyeuristic contemplation of the happy few, ceaselessly celebrated by the media [199], and tragically exposed to destructive mimetic conflict [200]. Capitalist pleasure boils down to exclusionary consumption, and its intensity depends on increasing levels of luxury [201,202]. Excluded masses feebly replicate the discriminating rituals through their low-powered, ego-reparative substitutes [203,204] in order to figure at all on the consumerist pyramid of status and privilege [205].

The war on pleasure, therefore, does not amount to its removal, but to the erasure of what may seem like a technical difference, a difference—nevertheless—on which political freedom depends: “Agreeable” pleasure that can be pursued as opposed to the unsolicited pleasure of aesthetic delight. This distinction between predictable pleasure that ignites desire and the delightful surprise that comes from beauty and play was central to Immanuel Kant’s Enlightenment project, because

surprise engenders doubt and requires judgment. Without unexpected and purposeless delight, we have no incentive to develop a free disinterested faculty of judgment (see Kant's *Third Critique on Aesthetic Judgment* [206]). That is why the reduction of pleasure to the mere pursuit of agreeable commodities—which cannot cultivate our availability for surprise or doubt—is an attack on freedom itself [207]. No cultural revolution is therefore possible without a radical gesture of individual and collective re-appropriation of disinterested pleasure [208]. This is the gulf between Weber and Gramsci: The destiny of disenchantment versus the agency of pleasure to re-enchant the world and thereby safeguard human freedom. Following Gramsci's lead, the only possible way to effectively re-enchant the world is to bring pleasure back to the very places where disenchantment banished it: Schools [209], workplaces [210], and public spaces [211]. The arts and humanities are important agents [212], if they can navigate an insidious ambiguity that threatens disinterest [213]. Like every other sphere of human activity, the arts and interpretation are vulnerable to commodification [214] that can exacerbate social distinction and exclusion [215]. A generic endorsement of the arts for their socially transformational role would therefore be naive, and many artists would make no such claim.

But many more do claim a political dimension that has gone mainstream as the disenfranchised command the attention of artists, particularly in visual arts [216]. Some engagements with marginal communities or minority groups retain an instrumental, paternalistic, or even neo-colonialist attitude [217]. A paradoxical consequence is that “political” art can elicit resentment or passive resistance from the subjects they represent [218]. A crucial issue here is how to avoid instrumentalization and commodification of social engagements [219]. Another is how to nurture artistic enchantment if the projects have a social purpose [220]. Additionally, how much should artists worry about projects that inadvertently fuel inequality [221], as in the gentrification-eviction-relocation cycles of real estate development [222], where art enters depressed neighborhoods as the Trojan horse for developers [223] with unintended but unsurprising consequences [224]? When the arts lend themselves to these dynamics, their social credibility evaporates [225] along with art's potential to re-enchant the world. The practical distinction to be made, therefore, is not between political and apolitical art, but rather between works that achieve real social consequences and those that are satisfied with ephemeral effects [226]. Tania Bruguera's *Arte Util* (useful art) calls attention to the distinction [227], as do lasting maestros, such as Augusto Boal with his Forum Theater [228], and Antanas Mockus with his stunningly effective pranks in service of civic culture [229].

For the arts to exercise a counter-hegemonic force in the Gramscian sense, they need to share his patience with process in continued, physically close dialogue with partner communities [230], avoiding the pitfalls of commodified paternalism [231]. In this way, artists can hope to develop dynamic, socially transformational processes that may support the empowerment of collective marginal subjectivities [232]. Art, in any case, is generally more focused on process than on product [233].

The commodification of pleasure in contemporary capitalism has not been equally effective everywhere. In the peripheries of capital, we still find deep pockets of resilient cultures, which have protected and perpetuated traditional practices of collective pleasure as community building activities [234], and resisted colonialist stereotyping [235]. These practitioners develop idiosyncratic bottom-up approaches to collective well-being [236] which provide fresh sources of social ingenuity, and often innovation. On the other hand, hegemonic practices of a distinctively Puritan imprint aim at the engineering of well-being and welfare through their measurement and certification in terms of a standard package of (far from methodologically flawless) indicators [237], which may be conveniently arranged to support the “normality” of the neoliberal status quo. An irony of modern measurement is that such indicators sometimes produce global rankings of happiness that may end up crowning “undisciplined” countries of Central and South America [238], an anomaly that consequently needs to be “explained away”. The problem here is clearly not measurement in itself—measurement has been and still is a key driver of human civilization. It is rather the fact that in the logic of disenchanting agency it is measurement that drives (that is, prescribes) action, and not vice versa. If it is the established logic of measurement (and thus its ideological premise) that strictly rules what is worth pursuing,

the scope for transformational social innovation is inevitably limited, and a growing blindness to the societal challenges that are not acknowledged by the prevailing paradigm ensues. We should not let the meaningfulness of social action to be mechanically ruled by the common sense of the status quo and by its way of measuring it. We should rather wonder whether the fact that certain forms of social action emerge as meaningful calls for new, more appropriate and responsive approaches to measurement that challenge such common sense and its consequential normative criteria.

7. Conclusions

Viewed from the South, pleasure knows best [239]. In some of the deep pockets at the margins of North Atlantic capitalism, there is no need for re-enchantment because the spirits have not yet been banished nor has joy lost its political meaning [240]. The global North could now learn from the South how to re-appropriate disinterested pleasure and re-discover its horizontal, anti-discriminatory, rejuvenating effects. This is no quick fix or cheap self-help advice; it entails a profound questioning of the center-periphery logic of colonial and post-colonial global hegemony. Re-enchantment requires, in the first place, undoing the paternalistic, diligent administration of “politically engaged” artistic practices—which include mining local arts as an appendix of the Western canon [241]—and therefore re-inscribing the modernist logic of patriarchal supercession [242]. In the second place, we should humbly explore creative practices cultivated at the margins of, and in response to, Weber’s anhedonic capitalism [107]. Collective and improvised performance, recycling, reciting, youth orchestras in unlikely slums, all speak in a Gramscian grammar of re-positioning as agency. Art works where interruptions of hegemonic structures are most needed: In the desolate areas of capitalist disenchantment both at the center and the periphery. Creative practices can generate new opportunities for social empowerment and mobilization through interventions that refresh a love and care for the world and that re-frame oppressive systems: “While North-South definitions essentially revolve around economic division, it is important to remember that the world will be a poorer place if artists of the South become yet another pathway for global cultural homogenisation” [243] (p. 22).

It is not only a matter of resisting cultural homogenization, but of inverting the direction of the flow, of informing rather than being informed by eliciting new forms of expressive collective action. This is, for instance, the deep sense of a project, such as Pedro Reyes’ *Palas por pistolas*: An invitation to Mexican citizens to exchange their firearms for shovels to be used to collectively engage in the planting of new trees. The arms would be then destroyed to be remodeled into gardening tools: The action broke the national record of voluntary donation and its repetition led to tree planting in a number of iconic cities of the Global North, turning utopian representations into a strategy of collective participation [244]. Or of projects, like Tania Bruguera’s *Destierro*, where the artist’s action of walking in the streets of La Habana with a human-size fetish in the day of the birthday celebration of Fidel Castro catalyzes a spontaneous procession of people by implicitly making reference to the popular credence of having a desire fulfilled by the fetish in exchange for a vow [245]. In *Untitled (Free)*, the Thai-Argentinian artist Rirkrit Tiravanija transforms a whole gallery space into a kitchen where the artist cooks Thai curries for visitors, thereby creating an inviting venue where the art becomes the support for the development of convivial exchanges [246]. In *Open House*, South African artist, Jacques Coetzer, offers a venue to be appropriated at will by all citizens to freely engage in social exchange and creative expression, or simply to have lunch or rest, as an ideal antithesis to the prescriptive space of the cultural institution with its rules and conventions [247]. However brief and fragmentary, these samples from a wide variety of ongoing practices and experiences, which are not only the expression of voices from the Global South, but also reflect ones from disenfranchised pockets of the Global North [248], are already telling enough to suggest that culturally-driven ‘re-enchantment’ as a counter-hegemonic strategy is not a simple possibility, but is a reality in the making, provided that it succeeds in escaping the trap of commodification, in becoming yet another source of ‘artistic blue chips’, luxury decoration pieces condescendingly appropriated by hegemonic agents as domestication trophies. The counter-hegemonic valence of such practices amounts instead to a “call for critical

thought generated from local axes, whose force and singularity allows for the renewal of contents and interlocutors in various areas of knowledge” [249] (p. 16).

This, in its mature articulation, is the cultural platform that can balance the governmentality of dour ‘seriousness’ with the energy of new proposals. Human creativity refreshes failing systems and nourishes itself with the inherent pleasure of making something new. It is an irrepressible fuel for sociability and development. Governments are wise to take the arts into account—as Franklin Delano Roosevelt learned during the Great Depression—in a useful and expanded toolkit for sustainable democracy.

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Article

Profiles of Violence and Alcohol and Tobacco Use in Relation to Impulsivity: Sustainable Consumption in Adolescents

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Abstract: The purpose of this study was to identify different adolescent profiles identified by their tobacco and alcohol use and patterns of violent behavior, as well as to analyze the extent to which such adolescents show impulsivity traits. The participants were selected by cluster random sampling. There were a total of 822 high school students in the sample, aged 13 to 18 years with a mean age of 14.84 ($SD = 0.87$). A cluster analysis with the following variables was conducted to form the groups: use of tobacco, use of alcohol, physical aggression, verbal aggression, anger, and hostility. A total of three groups of adolescents resulted from these six variables. A multivariate comparison demonstrated the existence of significant between-group differences, and an individual analysis of each of the dependent variables (impulsivity dimensions) showed that the relationship was statistically significant in all cases. In conclusion, the analysis of factors possibly associated with risk behavior in adolescents creates the possibility for and guides intervention in different stages of development in order to encourage sustainable consumption in adolescents.

Keywords: tobacco; alcohol; physical aggression; verbal aggression; impulsivity

1. Introduction

Adolescence is a period of transition into adult life in which a diversity of changes and stressful experiences combine [1] that could lead to involvement in situations that severely compromise development [2]. Thus, issues such as substance use [3,4] or peer relations could develop into problematic behavioral patterns in adolescents.

In Spain, the Survey on the Use of Drugs by High School Students 2014/2015 and the Survey on Alcohol and Drugs in Spain (EDADES) 2017/2018 [5,6] found a considerable improvement in the reduction of use habits as compared to previous versions of the surveys. Although this report contains data on a wide variety of substances, special attention is given alcohol and tobacco, which have a wider adolescent use pattern.

In recent years, the use of these substances, which are relatively accessible to young people, and their relationship with interpersonal violence have become a public health problem. The specific relationship between youth violence and substance use has been widely documented in recent reports by international organizations [7,8]. Other documents on youth risk behavior offer data that alert to a diversity of problems, such as peer violence at school, especially during adolescence [9–11].

One of the issues on which the research has focused heavily is the patterns of motivation for substance use [12,13]. Many of the beliefs that adolescents have about the consequences of using

substances such as alcohol or tobacco are erroneous [14], which is associated with minimizing derived risks [15]. Thus, adolescents with positive attitudes and/or expectations toward the use of alcohol show a higher risk in starting and maintaining use behavior [16–18]. In this line, several studies have associated impulsivity and sensation-seeking with drug use [17,19,20]. Malmberg et al. [21] suggest that impulsivity exerts a fundamental role in maintaining the use of alcohol and tobacco during early adolescence. These relationships could be particularly apparent during adolescence when changes in development occur and, at the same time, more opportunities for substance use appear [22,23]. A study by Pérez-Fuentes et al. [24] analyzing the relationship between impulsivity and the use of alcohol and tobacco by adolescents contained data suggesting that students who say they are users score significantly higher on metrics of impulsivity. Charles et al. [25] found that higher levels of impulsivity and sensation-seeking become more evident in early adolescence and are predictors of higher substance use in mid-adolescence.

Impulsivity is also present as a characteristic trait in aggressors and is a factor predisposing to involvement in violence [26]. Furthermore, in combination with sensation-seeking behavioral patterns, it has been shown that both work as predictors of different types of aggression [27,28]. In addition to individual factors [29–31], adopting certain risk behaviors is also subject to other determinant factors in the construction of self-concept [32,33] and personal wellbeing [34], whether related to family members or peer groups [35,36].

In working on preventing the use of alcohol and other drugs, it is important to consider the theoretical basis for adolescent decision-making about such substances. Litt and Lewis [37] applied the model for decision-making in health by Gerrard, Gibbons, Houlihan, Stock, and Pomery [38] to adolescent alcohol use and found that the adolescent alcohol user employs a largely socially-conditioned decision-making process characterized by very little planning. Recent results [39] have shown that the more they use tobacco and alcohol, the stronger their perception of social support from the peer group and less from the family. Data also derived from this study support the relationship of such use with both reactive and proactive aggression.

Precisely because of the relationship that the literature establishes between substance use and violence [40–42], the development of new lines of research oriented toward preventive intervention for both problems is considered necessary [43]. Both, as social problems derived from risk behaviors in the adolescent population, require intervention directed at developing prosocial behavior while reducing risk behavior. One of the results expected from this type of intervention is responsibility in substance use, in which improvement in the decision-making process intervenes. An effective approach to involvement in episodes of violence also requires the adolescent to acquire awareness of the consequences. At this point, impulsivity has a determining role in the type and intensity of the response, during which it is desirable for the adolescent to become more responsible.

Durkheim's sociology of education [44] refers to the existence of a set of common beliefs (collective conscience) enabling the development of collective action, which commits the individual to acting according to established social norms. In line with this position, the educational context is presented as a scenario where necessary educational action is put into practice to cope with social problems, such as preventing violence or substances use [45]. Therefore, in any of the phenomena analyzed in this article, adequate decision-making is required [46] to promote the sustainable development of responsibility and personal resources in adolescents. This approach to the aforementioned social phenomena enables a social balance to be maintained and sustainable life styles to be developed [47].

The purpose of this study was to identify adolescent profiles according to their use of tobacco/alcohol and violent behavioral patterns, as well as to analyze the extent to which they show impulsivity traits. The following research hypotheses were formulated: (1) It is possible to identify different adolescent profiles by their tobacco/alcohol use and violent behavior repertoires, (2) there is an association between tobacco and alcohol use and violence, and (3) impulsivity is involved in adopting the risk behaviors analyzed, and users and those who score higher in aggressiveness are the most impulsive.

In brief, an attempt was made to acquire information on the individual characteristics and particularities of a population, which often shares common educational scenarios and problems, enabling a basis to be set for their later analysis from a social perspective.

2. Materials and Methods

2.1. Participants

The participants were selected by cluster random sampling. A total of 8 high schools were selected at random following the geographic distribution of the city of Almeria. There were 822 high school students in the sample, aged 13 to 18 years, with a mean age of 14.84 ($SD = 0.87$). Of the whole sample, 51.8% ($n = 426$) were men and 48.2% ($n = 396$) were women with mean ages of 14.85 ($SD = 0.87$) and 14.82 years ($DT = 0.86$), respectively. The distribution of the sample by grade was as follows: 43.7% were students in their third year ESO ($n = 359$), and the remaining 56.3% were in their fourth year ESO ($n = 463$).

2.2. Instruments

Sociodemographic data on the sample (age, sex, grade) were collected using an ad hoc questionnaire, and information on use of tobacco and alcohol by two items with a dichotomous answer format (yes/no).

Aggression Questionnaire (AQ) by Buss and Perry [48]. In this study, the Spanish adaptation of the study by Andreu, Peña, and Graña was applied [49]. The questionnaire consists of 29 items and attempts to evaluate aggressiveness by means of four factors: physical aggressiveness, verbal aggressiveness, hostility, and anger. The 29 items are scored on a 5-point Likert-type scale, where 1 = completely false for me; 2 = rather false for me; 3 = neither true nor false for me; 4 = quite true for me; 5 = completely true for me. The reliability coefficients found in the original study by Buss and Perry varied from 0.72 to 0.85. For the Spanish adaptation, the authors showed a Cronbach's alpha for the complete scale of 0.88, while for the scales that comprise it, the coefficients varied from 0.68 to 0.86. In this study, the Cronbach's alpha was 0.87 for the complete questionnaire, and for each of the scales, it was $\alpha = 0.79$ for physical aggression, $\alpha = 0.69$ for verbal aggression, $\alpha = 0.69$ for anger, and $\alpha = 0.68$ for hostility.

State Impulsivity Scale (SIS) by Iribarren, Jiménez-Giménez, García-de Cecilia, and Rubio-Valladolid [50]. This scale is designed to evaluate impulsive behavior defined as a state, that is, impulsivity as a behavioral manifestation that may vary in the short term. It consists of 20 items distributed in 3 subscales: gratification (evaluating the urgency in satisfying impulses, the preference for immediate reward, intolerance of frustration, and the tendency to act without caring about possible negative consequences), automatism (refers to behaviors expressed rigidly and repetitively, without attention to contextual variables), and attentional (evaluates the presence of unplanned behavior, which takes place because of acting too soon and without considering all the available information). Subjects are asked to evaluate the frequency with which each statement is true for them and answer on a 4-point Likert scale. The authors [50] found high reliability, both for the complete scale ($\alpha = 0.88$) and for each of its dimensions: gratification ($\alpha = 0.84$), automatism ($\alpha = 0.80$), and attentional ($\alpha = 0.75$). In our study, alpha was 0.73 (gratification), 0.76 (automatism), and 0.80 (attentional), coinciding with Iribarren et al. [50], with an $\alpha = 0.88$ for the total scale.

2.3. Procedure

First, the principal of each school was informed of the objectives, procedure, and use of the research data. The pertinent permissions were requested on an informed consent sheet addressed to the parents/guardians, and before the tests were implemented, only students who had paternal authorization were permitted to participate. The participants were provided with instructions for filling out this documentation, as well as guaranteeing their privacy in the data processing. The study

was approved by the Bioethics Committee at the University of Almeria (Spain). Then, two members of the research group went to the high school to give the tests. The database was built up and analyzed with SPSS v.22.

2.4. Data Analysis

First, a 2-stage cluster analysis was done to form the groups of adolescents based on their tobacco and alcohol use variables with a dichotomous (yes/no) response and the continuous quantitative variables related to violence (physical aggression, verbal aggression, anger, and hostility).

After the groups or clusters had been identified, a MANOVA was performed to find any significant differences between the groups with respect to the dependent variables (gratification, automatism, and attentional). To determine the means, which were significantly different, the Scheffé post hoc method for comparisons was applied.

3. Results

A cluster analysis with the following variables was done to form the groups: use of tobacco, use of alcohol, physical aggression, verbal aggression, anger, and hostility. A total of three groups of adolescents resulted from these six variables (Figure 1) with the following distribution: 31.8% ($n = 261$) in Cluster 1, 29.8% ($n = 245$) in Cluster 2, and the remaining 38.4% ($n = 316$) in Cluster 3.

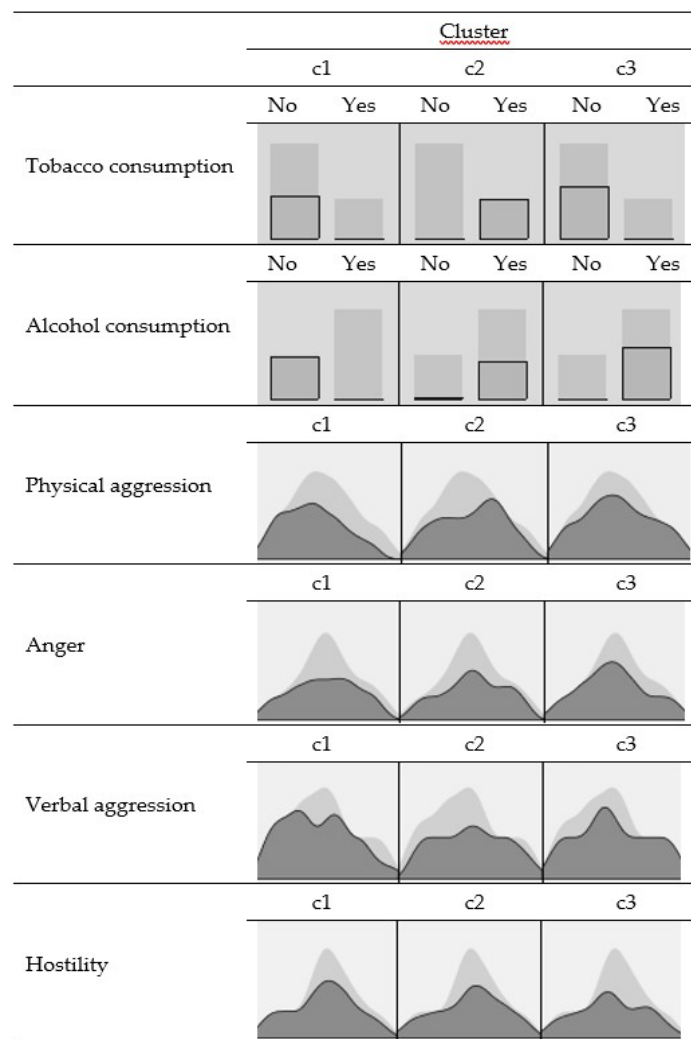


Figure 1. Cluster composition. The variables are presented according to input importance (predictor).

The first group resulting from the cluster analysis (Cluster 1) was characterized by 100% of the adolescents not using either tobacco or alcohol and scoring below the mean for the total sample with respect to the violence variables, specifically physical aggression ($M = 2.19$), verbal aggression ($M = 2.46$), anger ($M = 2.63$), and hostility ($M = 2.81$), whereas for the total sample ($N = 822$) the scores were physical aggression ($M = 2.47$), verbal aggression ($M = 2.68$), anger ($M = 2.91$), and hostility ($M = 2.93$).

The second group (Cluster 2), included adolescents who were tobacco (100%) and alcohol users (95.1%) with scores on the violence variables over the mean for the total sample with the following scores: physical aggression ($M = 2.79$), verbal aggression ($M = 2.83$), anger ($M = 3.16$), and hostility ($M = 3.04$).

The third group (Cluster 3) included adolescents who do not smoke (100%) but who drink alcohol (100%). Their mean scores on the violence variables were close to those of the total sample: physical aggression ($M = 2.45$), verbal aggression ($M = 2.74$), anger ($M = 2.94$), and hostility ($M = 2.96$).

The Table 1 shows a summary of the frequency (use of tobacco and alcohol) and mean scores (physical aggression, verbal aggression, anger, and hostility) of the variables analyzed for both the total sample and by cluster.

Table 1. Frequency/mean scores for the total sample and by cluster.

	Total Sample ($N = 822$)	Cluster		
		1 (Cluster 1) ($n = 261$)	2 (Cluster 2) ($n = 245$)	3 (Cluster 3) ($n = 316$)
Use of tobacco	Yes 29.8% No 70.2%	No 100%	Yes 100%	No 100%
Use of alcohol	Yes 66.8% No 33.2%	No 100%	Yes 95.1%	Yes 100%
Physical aggression	$M = 2.47$	$M = 2.19$	$M = 2.79$	$M = 2.45$
Verbal aggression	$M = 2.68$	$M = 2.46$	$M = 2.83$	$M = 2.74$
Anger	$M = 2.91$	$M = 2.63$	$M = 3.16$	$M = 2.94$
Hostility	$M = 2.93$	$M = 2.81$	$M = 3.04$	$M = 2.96$

After group classification based on the three-cluster solution, a MANOVA was done to determine whether there were any differences between the clusters in the impulsivity-dependent variables (gratification, automatism, and attentional).

The homogeneity of covariance was examined using the Box's M test, and the null hypothesis of the data fit was rejected ($M_{Box} = 25.54$; $F = 2.11$; $p < 0.05$). The multivariate comparison demonstrated the existence of significant between-group differences (Wilks Lambda = 0.907; $F_{(6, 822)} = 13.592$; $p < 0.001$; $\eta_p^2 = 0.048$).

The Levene test [gratification: $F_{(2, 819)} = 2.379$; $p = 0.093$; automatism: $F_{(2, 819)} = 2.552$; $p = 0.079$; attentional: $F_{(2, 819)} = 1.735$; $p = 0.177$] showed that the groups were homogeneous (the null hypothesis of the equality of variance was accepted), so ANOVAs were performed without applying any type of correction, and the Scheffé method was used for post hoc comparison.

The individual analysis of each of the dependent variables (impulsivity dimensions) showed that the relationship was statistically significant in all cases (Table 2).

Table 2. Means and standard deviations of the groups (clusters) and eta squared (η^2) for each of the dependent variables.

	Cluster 1		Cluster 2		Cluster 3		η^2
	<i>M</i>	<i>DT</i>	<i>M</i>	<i>DT</i>	<i>M</i>	<i>DT</i>	
Gratification	11.67	0.24	14.77	0.25	13.19	0.22	0.088
Automatism	10.82	0.23	12.79	0.24	11.99	0.21	0.039
Attentional	12.90	0.26	15.34	0.27	14.21	0.23	0.049

With respect to gratification, there were significant differences between the three groups ($F_{(2, 819)} = 39.754$; $p < 0.001$; $\eta_p^2 = 0.088$). Post hoc comparisons show that Cluster 2 (tobacco and alcohol users with violence scores over the mean of the total sample) had a significantly higher score ($M = 14.77$) than the rest of the groups. Furthermore, Cluster 3 ($M = 13.19$) had a significantly higher score than Cluster 1 ($M = 11.67$).

Significant differences were also found between the groups with respect to automatism ($F_{(2, 819)} = 16.824$; $p < 0.001$; $\eta_p^2 = 0.039$). The results of the post hoc comparisons show that both Cluster 2 ($M = 12.79$) and Cluster 3 ($M = 11.99$) scored significantly higher than Cluster 1 ($M = 10.82$).

Finally, with respect to the attentional impulsivity factor, there were also significant between-group differences ($F_{(2, 819)} = 20.907$; $p < 0.001$; $\eta_p^2 = 0.049$). Post hoc comparisons show that Cluster 2 had a significantly higher score ($M = 15.34$) than the rest of the groups. The Cluster 3 ($M = 14.21$) score was in turn significantly higher than that of Cluster 1 ($M = 12.90$).

4. Discussion

Based on the results, three groups or profiles were identified from the combination of tobacco and/or alcohol use and the scores on violent behavioral patterns: (1) Adolescents who do not use alcohol or tobacco and have lower scores on violence than the mean of the total sample, (2) adolescents who use alcohol and tobacco, with violence scores above the mean, and (3) adolescents who use alcohol but not tobacco and have violence scores similar to the mean. In this distribution, it may be observed how the subjects grouped by their affirmative answers on the use of either of the two substances coincide with the cluster where the subjects have the highest scores on the different types of aggression and vice versa. Thus, the relationship found between violence and the use of accessible substances, such as alcohol and tobacco, is in line with recent reports on the topic [7,8]. Moreover, except for the consensus of studies, which support an association between both problems in one way or another [39–41], the results are also in agreement on the influence (as a predictor) of impulsivity on risk behaviors, whether during early [21] or mid-adolescence [25].

Thus, there is no doubt about the presence of certain variables related to impulsivity and sensation-seeking during adolescent decision-making about substance use [17,19,20] or their expression of aggression [26,28,39]. In this study, statistically significant differences were found between the profiles identified for all the impulsivity factors, where the group of adolescents who used alcohol and tobacco and had the highest aggression scores were also the most impulsive. It must also be considered that drinking alcohol is characterized by little reflection and planning in decision-making [17,37].

These practical implications should be considered with caution in view of the limitations derived from errors associated with the measurement method. In this case, there could be certain sources of error such as malingering [51] and/or denying consumption [52]. However, there is no doubt that any case is related to the honesty of the responses of the adolescents in the sample.

5. Conclusions

An analysis of factors possibly associated with an adolescent's risk behavior makes possible and orients intervention in different stages of development. In other words, from a public healthcare standpoint, we attempted to identify those factors that place adolescent health and wellbeing, in its

widest sense, at risk through a combined approach to both problems [43]. Therefore, having these data will enable preventive programs to be designed for implementation, not only adequately, but also at the right time for them to be most effective. From this approach, considering the variability of factors that intervene in both problems [29,31–36], these data should be considered in future lines of research. Programs must also be designed to promote successful adolescent decision-making for the sustainable development of responsibility, the acquisition of individual resources, and the prevalence of prosocial competencies over involvement in substance use and risk behavior.

Furthermore, the sociology of education proposes priorities for action, such as the following: (1) achieving consequent articulation between education and strategies for the social development of a community and its current problems, and (2) promoting participation of social sectors in approaching these problems. Thus, our interest is in providing a more integrated approach to the analysis of the social problems posed (sociology), to which efforts can be directed at designing and implementing future educational action (education).

In this framework, society demands that education, as a social phenomenon, generate changes and constitute a factor in positive adolescent development, in all its areas (personal, psychological, social, family, etc.). The social function of education can therefore promote values, attitudes, and behavioral patterns adaptive to a social reality in constant change. From this viewpoint, and based on the matters analyzed in this study, new discussions emerge on the relationships between sociology, education, and in this case, adolescent development.

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Article

Influence of Bibliotherapy Education on the Social-Emotional Skills for Sustainable Future

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Abstract: The aim of this study is to evaluate the influence of bibliotherapy education on the social-emotional skills of psychological counselling and guidance candidates. The test group of the study consisted of psychological counselling and guidance students who participated voluntarily in the course named “Applied Counselling and Bibliotherapy”. A pre-test and post-test experimental design without a control group was used in the study. The Social Skills Inventory was used, for determining the social skills level of students before and after they are provided with bibliotherapy education. It was concluded from the study that there is a significant difference in the general scores for the social skills of female students after bibliotherapy education and the scores they obtained in the sub-dimensions of social expressivity. With the given reading materials and method of delivery, when the effect of bibliotherapy education on social skills level was compared, it was found in the final test that female students’ scores in the sub-dimensions of emotional expressivity and social control were significantly higher than those of male students. However, it was concluded that male students’ scores in the sub-dimension of emotional control were higher than those of female students.

Keywords: bibliotherapy; bibliotherapy education; social emotional skills; psychological counselling and guidance students

1. Introduction

In Turkish literature, when sustainable education is considered, school buildings, equipment and physical environment generally come to mind. Many studies have shown that sustainable education can be achieved by improving the physical structure of the school [1,2]. However, in developing countries such as North Cyprus, it is mentioned that besides physical environments, social and emotional environments are also becoming important in education [3]. Therefore, the necessity of having social emotional skills in the context of sustainable education is a key factor. In the study of Kaya and Tomal [4], a social studies course program was examined and it was determined that concepts such as cultural sustainability, sustainable peace and sustainability of living spaces have achieved prominence. However, in this study, the researchers stated that studies focusing on the development of social skills are quantitatively very inadequate on the basis of sustainable education and that new studies should be conducted. The starting point of this study is an attempt to increase the qualifications of school counsellors, who will be the focus of social-emotional skills development in higher education via an empirical study. Thus, to the aim is to increase the school counsellors’ social emotional skills, along with education sociology and the sustainable education which will start in the future.

Cognitive and affective gains are as important as social skills in education. In fact, in the twenty-first century, parallel to changing living conditions, one of the expectations of the education system is the development of all aspects of the students [5]. Therefore, it is very valuable to conduct

studies on the social development of individuals. Improved social skills individuals constitute the basis for a sustainable future. They are also important in education and human relations as well as for the information they transmit to future generations, and they are a valuable resource in this sense. This research aims to obtain sociological findings and results on the basis of counselling and guidance with an interdisciplinary approach.

While Bank [6] was explaining the content of the educational sociology, he underlined the importance of the “socialization process”, “education and social change”, “education and gender”, and “school as a social system”. In this research, a framework has been determined on the basis of the above issues regarding the sociology of education. Firstly, the focus was on the socialization processes of school counsellors who participated in this research, and therefore the aim was to improve their social-emotional skills. Thus, through the experimental process of this research, education has been used as a tool for social change. In addition, specific importance was assigned to the gender factor and the fact that the school is a social system in this study, which are the main topics of the sociology of education.

In order for psychological counselling and guidance candidates to develop in and practice their profession effectively, it is important that they have healthy relationships with others, understand others’ emotions and show empathy towards them. It is vital that psychological counselling and guidance students understand themselves in personal and social aspects, know their strengths and weaknesses and have self-confidence [7]. Thus, psychological counselling and guidance students should have the ability to understand their clients’ emotions, thoughts and attitudes that are integral components of the counselling process. Furthermore, it is necessary to have the skills of conversing with others, sharing opinions, understanding verbal messages and learning social norms, and to act accordingly [8].

One of the best learning experiences in an individual’s life is the moment when they learn how to read and write, which opens the doors to many opportunities in life. They will be able to make choices freely in this world and it will open new avenues in their careers. They will be able to learn everything that people have experienced throughout history by using literary resources. In this way, they will be able to understand people, develop real world values and have new experiences [9]. Students of psychological counselling and guidance have the opportunity to learn about individuals and their personal characteristics, emotions, and their relationships with their environment through books [10]. Books have many therapeutic properties and can provide guidance in people’s lives. The students of psychological counselling and guidance can use the bibliotherapy technique by opening new paths in their future professional lives, by considering facts from a different angle and benefiting from previous literary works. According to Riordan and Wilson [11], bibliotherapy can be defined as “the guided reading of written materials in gaining understanding or solving problems relevant to the person’s therapeutic needs”. It is particularly beneficial to use this technique in group counselling works [12]. Moreover, it is possible that students of psychological counselling and guidance can understand their lives through their studies in order to have new experiences and access new information [13].

When examining the historical development process, it can be seen that mental health specialists, librarians, nurses and instructors have used bibliotherapy effectively for different purposes [14]. “Bibliotherapy is a treatment method which is used in determining the requirements peculiar to development periods of an individual, in handling individuals’ adaptation problems to life and in understanding their social emotional problems by bringing the proper individual together with the proper book at the proper time” [15]. Bibliotherapy is used for meeting the needs of an individual as both a developmental approach and as a clinical approach. The bibliotherapy technique is used in preventing and solving the problems individuals confront in their daily lives during their period of development [16,17]. When today’s developing technology and information resources are considered, the definition of bibliotherapy as “improvement through knowledge” can be considered appropriate. The information resource to be chosen is dependent on the bibliotherapy practitioners [18].

In summary, bibliotherapy is used as a non-test technique in the field of psychological counselling and guidance. Psychological counsellors perform apply the bibliotherapy technique by using novels, stories and tales in guidance practices as well as individual or group counselling.

It is believed that bibliotherapy will help the students of psychological counselling and guidance to understand and discover themselves, to realise that there are other individuals that have the same problems as them, to develop more positive self-respect, to apply their self-perceptions to the solutions of problems, to see that there could be many different ways of solving problems and to enable them to see through the eyes of others by feeling empathy [15,19]. In the light of such acquisitions, new generations that will be trained by the students of psychological counselling and guidance will be encouraged to become more self-confident and independent individuals. In this regard, the social-emotional acquisitions are important [20].

Social emotional skills are the special qualifications that allow individuals to perform effectively in social environments. In order for individuals to have such qualifications and to apply their skills, fulfilling verbal and nonverbal behaviours plays an important role [21]. A social qualification is the evaluation made regarding the behaviours that an individual shows in his/her social environment; consequently, social qualifications have parallels with emotional development. According to Çiftçi and Sucuoğlu [22], social emotional skills are influenced by many environments in which intelligence, personality, perception, value, attitude and skills are utilised. Segrin [23] stated that social skills are the qualifications related to establishing effective and appropriate relationships with other people.

From the literary perspective, it can be seen that the social skills scores of women were higher than those of men in the research conducted by Yıldırım and Özcan [24]. Furthermore, Atkins and Burnett [25] stated that there were differences in terms of the social skills of female and male students in their research on the social skills of students. It can be said that female students have greater speaking skills due to the family environment in which they are raised, thus allowing them to easily express their emotions and confront the circumstances they experience in life. It was also expressed in the mentioned research that females have more social skills and the fact that they enter puberty before males means that they mature faster. It was revealed also in the research of Kalafat [26] that the general social skills level of females is higher than males. It was observed in the study conducted by Çilingir [27] that females are more qualified than males in using non-verbal messages in the dimension of emotional control on the social skills scale, indicating that they have an increased capacity to regulate and control their emotions. Moreover, it was found in the research conducted by Deniz [28] that in the total scores for emotional expressivity, emotional sensitivity, social control and social skills of female students studying at university were higher than those of male students, whereas the emotional control scores of male students were significantly higher than the average scores of the female students. On the other hand, it was observed in the research conducted by Altınbaş [29] that the level of social support that female students receive from their family and friends is higher than for male students. However, Şenol and Türkçapar [30] stated in their research that the difference in emotional sensitivity and emotional control dimensions, which are among the sub-dimensions of social skills based on gender, is statistically significant. In a similar vein, it was concluded in the study conducted by Avşar [31] and Tekin et al. [32] that the difference between the scores that students obtained from the sub-dimensions of emotional control and social control is statistically significant.

In this study, the gender variable was specifically addressed by the researchers. On the basis of bibliotherapy, reading is very important. In Turkish literature, studies on reading skills have found that the attitudes of women are significantly positive. For example, in the study conducted by Arslan [33], 52 studies were examined and 70% of these studies showed positive results in relation to women in terms of reading skills. Therefore, it is considered that the gender variable should not be ignored in a study based on Turkish culture. Thus, this study aims to contribute to the literature by examining whether bibliotherapy is effective in changing the gender-based reading skill difference.

Referring to the studies in the field of psychological counselling and guidance, it was found that the use of bibliotherapy education conducted through stories is rare. It is believed that this kind

of education will be an effective method for developing the socio-emotional skills of psychological counselling and guidance students. The aim of this study is to investigate whether or not female and male students will show development in social emotional terms through bibliotherapy education.

1.1. Problem Sentence

What is the impact of bibliotherapy education on the social and emotional skills of psychological counselling and guidance students?

1.2. Sub Problems

As a result of the bibliotherapy education applied in this study, the sub-problems are as follows:

- a. Is there any significant difference between the pre-test and post-test scores of psychological counselling and guidance students (female and male students are evaluated separately) regarding their total and sub-dimension scores obtained from the “social skills” scale?
- b. Is there any significant difference between the “social skills” and sub-dimension post-test scores based on gender?

2. Materials and Methods

A single group pretest-posttest experimental design was used in the study. Affordability, accessibility and time factors were considered at the university of one of the researchers who conducted the research and the purposeful sampling method was therefore used to select the study group.

2.1. Case of the Study

The university where the research was conducted was founded in 1988. The Near East University (NEU) campus is located in Nicosia, North Cyprus. NEU provides education with 19 faculties, 8 institutes, 7 colleges and 28 research centres. In NEU, approximately 30,000 students are educated in undergraduate and graduate education. The Faculty of Education and Psychological Counselling and Guidance Department, which is the sample of the study, was established in 2005. The Psychological Counselling and Guidance Department offers Turkish education. The aim of the department is training people to be able to provide psychological counselling and guidance in various fields where this service is needed. The people who graduate from this department are expected to be subject specialists who are equipped with skills, theoretical knowledge and abilities to deal with institutional and personal needs of their clients. The courses given by the department such as communication skills between people, basic living skills, theory of physical, cognitive and psycho-social development have a significant role in training happy, productive, responsive and easy-going individuals [34].

2.2. Study Group

The participants of the study consisted of 3rd grade psychological counselling and guidance students who were studying at the Near East University Faculty of Education in Cyprus in the 2016-2017 academic year. The random sampling method was used in determining the participants. This sampling method is defined as the selection of a part of the population according to the sample size determined by the researcher [35]. The participants who had voluntarily selected the bibliotherapy education course to be applied in this study and who had finished the main courses of “Psychology, Developmental Psychology, Psychological Counselling and Guidance, Psychometrics, Ethical and Legal Issues in Psychological Counselling, Learning Psychology, Psychological Counselling Principles and Techniques, Educational Sociology” given by the Department of Psychological Counselling and Guidance at the Faculty of Education of the Near East University. The participants comprised 16 females and 14 males, with a total of 30 students. The average age of the participating students was determined to be 22.

2.3. Experimental Application Process

At the beginning of the experimental implementation process, it was considered necessary to evaluate the reading interests and habits of the psychological counseling and guidance candidates. The participants in the study group generally stated that they preferred to read books on culture, psychology, science and humor. According to the gender variable highlighted in this study, it was stated by participants that reading interests differed in the individual interviews before the experimental application. For example, while women were interested in texts on emotional, psychological and personal development, it was found that men were interested in texts on crime, adventure and science fiction. Thus, while selecting bibliotherapy texts to be used in the experimental process of this research, based on the interests and needs of the students, a balance was established between the reading interests of both men and women. Finally, the relevance of the texts to bibliotherapy in the context of developing social emotional skills for the purpose of the study was evaluated. For this purpose, the opinions of three field experts were taken.

Names, acquisitions during the activities, materials used and the process applied in the 10 sessions realised during this research are provided in the following Table 1.

Table 1. Experimental process of applied activities.

Name of Activity	Objective, Acquisitions	Materials	Process
Shall we be friends	-Increasing awareness on friend relationships -Take the opportunities	-The story of "How many dovetails did you chase" -One piece of blank A4 paper	-Selecting a volunteer student, asking questions on friendship and listing of the answers to the questions by the students
Let's solve a problem	-Not avoiding the problems -Being able to realise solutions	-The story of "Be like a lake"	-Transcription of problem-solving phases by the practitioner on the board, distribution of the questions including problem solving skills to the students and ensuring group interaction
Trust	-Students do not feel alone -Students comprehend the importance of trust	-The story of "Footprints" -One piece of blank A4 paper -A scarf allowing the eyes to be hidden	-Students are separated into groups of two by the practitioner, the eyes of one of the couples are blindfolded and the other member directs him/her
Our Objectives	-To help students increase their skills in determining their own objectives	-The story of "Hidden treasure"	-The practitioner distributes the principles including the criteria for students determining their objectives, the students determine five objectives that they want to achieve, the students are asked to debate the determined objectives within the class
Feeling of emotions	-Students act by listening to the voice coming from their heart -Helping them become aware of their emotions	-The story of the "filled cup" -Dice which are made of cardboard with the dimensions 3*3*3	-The practitioner draws on table the symbols showing the dice faces from 1 to 6, a character represents the emotions for each symbol, students throw the dice in turn, students are asked to talk about an event they experienced before regarding the emotion corresponding to the dice face
Mirror	-Students realise that the world is a reflection of themselves	-The story of "Visitor" -One blank A4 paper	-The students are grouped in threes by the practitioner, they do gestures and mimics each other, they imitate one another, a third person arbitrates, roles change every three minutes and the questions are debated in a process of group interaction
Effective communication	-Students meet the needs of people in their surroundings	-The story of "Mirror of the painter"	-Students are grouped in fives by the practitioner, they talk about their feelings at the end of the speaking and listening activity
Things annoying us	-Students notice their anger -Students distinguish the importance of controlling negative behaviours	-The story of "Joe's new boat" -One piece of blank paper	-The practitioner writes down the list about anger on the board divided into three parts, volunteer students go to the blackboard and they are asked to make a list of their feelings and events that make them angry regarding each item
Here and now	-Time and location help students increase their awareness level -Helping students understand their perceptions for that moment and give attention to their self-evaluation	-The story of the "Blind man"	-Students are asked to indicate the persons in the pictures distributed to them in terms of which one belongs to the past, future or current time, students are divided into groups and they are asked to debate and state their emotions by asking questions to each other about the importance of staying in the here and now
Our Concerns	-Helping students increase their coping skills with their fears	The story of "The child afraid of the tiger"	-Talking about the concerns of students, answering the questions about concern and sharing them with students in the class

2.4. Data Collection Tools

In terms of data collection tools, the personal information form, which was prepared by the researchers, and the Social Skills Inventory-SSI, which was developed by Riggio [36] and whose adaptation into Turkish was realised by Yüksel [37], were used in the study. The Social Skills Inventory was prepared with the aim of measuring basic social skills. The Social Skills Inventory measures the social skills under six different sub dimensions, which are: 1. Emotional Expressivity, 2. Emotional Sensitivity, 3. Emotional Control, 4. Social Expressivity, 5. Social Sensitivity and 6. Social Control. In total, there were 90 items in the scale [38].

Scoring in the Social Skills Inventory is easy and fast. The higher the scores are, the higher the level of social skills [39]. Overall, the Social Skills Inventory is a scale oriented for adults. The applicable lower limit of the scale is the age of 15.

The reliability of the Social Skills Inventory was calculated separately through the test-retest and internal consistency methods. The reliability coefficient for the total score, which was found through the test-retest method, was found to be $r = 0.92$ for the whole scale. On the other hand, the reliability coefficients that were obtained from the sub scales varied between $r = 0.80$ and $r = 0.89$ [38]. The scores of some questions in the inventory (a total of 32 questions) were calculated by reversing the scores. Each sub dimension of the Social Skills Inventory consists of 15 questions. The lowest score was 1, while the highest one was 5 in the Social Skills Inventory. The lowest possible score from the Social Skills Inventory is 90 points, whereas the highest score is 450 points. In terms of the subscales, the minimal obtainable score is 15 points and the highest is 75 points [37].

2.5. Collecting Data

The “Personal Information Form” and “Social Skills Inventory” in line with the hypothesis of the research were administered to the participants. The students’ genders were taken as the basis in the Personal Information Form. The Social Skills Inventory was applied to the students as a pre-test. Subsequently, bibliotherapy education was provided to them in 10 sessions through stories. Attention was paid to identify whether there was a significant difference between the pre-test scores and post-test scores of the students by administering the Social Skills Inventory as a post-test at the end of the sessions.

2.6. Data Analysis

SPSS 21 program was used in the data analysis of the study. The Shapiro-Wilk and Levene tests were used in order to test the homogeneity of variations and the normality of data distribution. The data was seen to be distributed normally according to the findings obtained at the end of the Shapiro-Wilk test ($p > 0.05$). The variations were seen to be homogeneous according to the Levene test ($p > 0.05$). Accordingly, an independent t-test was applied in order to determine the difference between the female and male students’ pre-test and post-test scores in the research. The statistical significance level was determined to be $p < 0.05$.

3. Results

The findings are provided in three tables on the basis of the sub problems of the research.

According to Table 2, it was detected that the difference between the pre-test and post-test scores that female students obtained from the overall social skills inventory and sub dimension of social expressivity was found to be statistically significant ($p < 0.05$). It was determined that there was no statistically significant difference between the pre-test and post-test scores obtained by the female students from the emotional sensitivity, social sensitivity, emotional control and social control sub dimensions ($p > 0.05$).

Table 2. Comparison of the pre-test and post-test Social Skills Inventory scores of female students.

Sub Dimensions	Measurement Time	N	\bar{x}	S	t	p
Emotional Expressivity	Pre-test	16	39.31	4.44	−1.585	0.134
	Post-test	16	41.01	7.10		
Social Expressivity	Pre-test	16	38.56	11.58	−2.250	0.040 *
	Post-test	16	40.91	11.01		
Emotional Sensitivity	Pre-test	16	41.63	7.28	−1.486	0.158
	Post-test	16	43.32	5.73		
Social Sensitivity	Pre-test	16	33.44	4.73	−0.395	0.698
	Post-test	16	33.91	3.60		
Emotional Control	Pre-test	16	30.06	2.74	0.385	0.706
	Post-test	16	29.51	5.33		
Social Control	Pre-test	16	40.13	6.85	−1.349	0.197
	Post-test	16	41.49	5.42		
Overall Social Skills Inventory	Pre-test	16	223.13	28.25	−2.190	0.045 *
	Post-test	16	230.14	24.59		

N: total number of participants, \bar{x} : arithmetic mean, S: standard deviation, t: compare the mean values, p: significant value. * $p < 0.05$.

According to Table 3, it was detected that the difference between the pre-test and post-test obtained by the male students from the overall social skills inventory and sub dimensions was not found to be statistically significant ($p > 0.05$).

Table 3. Comparison of the pre-test and post-test Social Skills Inventory scores of male students.

Sub Dimensions	Measurement Time	N	\bar{x}	S	t	p
Emotional Expressivity	Pre-test	14	37.64	4.89	1.190	0.255
	Post-test	14	35.59	5.10		
Social Expressivity	Pre-test	14	39.68	5.35	0.323	0.752
	Post-test	14	39.28	6.57		
Emotional Sensitivity	Pre-test	14	38.27	7.66	−0.999	0.336
	Post-test	14	40.29	6.58		
Social Sensitivity	Pre-test	14	33.80	4.36	1.600	0.134
	Post-test	14	31.85	3.31		
Emotional Control	Pre-test	14	34.72	3.60	1.120	0.283
	Post-test	14	33.57	3.86		
Social Control	Pre-test	14	39.07	4.62	1.823	0.091
	Post-test	14	36.66	6.88		
Overall Social Skills Inventory	Pre-test	14	223.18	17.61	1.816	0.092
	Post-test	14	217.23	20.18		

According to Table 4, it was detected that the difference between the pre-test scores that male students obtained from the overall social skills inventory and the sub dimensions of social expressivity, emotional sensitivity and social sensitivity were not found to be statistically significant ($p > 0.05$).

Table 4. Comparison of the scores of post-test Social Skills Inventory scores according to their genders.

Sub Dimensions	Sex	N	\bar{x}	S	t	p
Emotional Expressivity	Female	16	41.01	7.10	2.368	0.025 *
	Male	14	35.59	5.10		
Social Expressivity	Female	16	40.91	11.01	0.485	0.632
	Male	14	39.28	6.57		
Emotional Sensitivity	Female	16	43.32	5.73	1.349	0.188
	Male	14	40.29	6.58		
Social Sensitivity	Female	16	33.91	3.60	1.624	0.116
	Male	14	31.85	3.31		
Emotional Control	Female	16	29.51	5.33	−2.361	0.025 *
	Male	14	33.57	3.86		
Social Control	Female	16	41.49	5.42	2.147	0.041 *
	Male	14	36.66	6.88		
Overall Social Skills Inventory	Female	16	230.14	24.59	1.557	0.131
	Male	14	217.23	20.18		

* $p > 0.05$.

It was detected that the difference between the scores that the students obtained according to the gender factor from the sub-dimensions of emotional expressivity, emotional control and social control that were included in the scale were statistically significant ($p < 0.05$). While the emotional expressivity and social control sub dimension scores of the female students were found to be higher than the male students, the male students' scores in the sub-dimension of emotional control were found to be higher than those of female students.

The most important finding of this study is that different people in the same experimental group may be affected at different levels from the same experimental practice. Female school counsellor candidates benefited from the experimental application more than men. The reason for this difference may be women's reading substructures and interests, and their willingness to acquire social skills. On the other hand, the limitation of the research is that male school counsellor candidates do not benefit sufficiently from the experimental application. The bibliotherapy technique for male school counsellor candidates may not have been effective or the reading texts used in bibliotherapy may not be suitable (interesting/intriguing) for them. In the context of improving their social skills, male school counsellor candidates may have needed a longer period of time.

4. Discussion

It was detected that the difference between the pre-test and post-test scores that female students obtained from the overall social skills inventory and the sub dimension of social expressivity was found to be statistically significant. This situation demonstrates that the skills of the female students in terms of engaging in social communication increased positively after receiving bibliotherapy education. One conclusion that can be drawn from this is that female students like to speak with other, to be in groups, are sociable and desire to be part of a group. Herbert and Furner [40] stated in a study they conducted that the bibliotherapy technique is supportive of emotional and social development. On the other hand, Davis and Wilson [41] mentioned that the bibliotherapy technique allows students to understand their social and emotional needs. It was mentioned in the study conducted by Herbert and Kent [42] that it is possible to prevent social and emotional problems before they occur and to provide information that will be beneficial when facing problems and situations that may be encountered in future years.

It was found in this study that there is no statistically significant difference between the pre-test and post-test scores that male students obtained from the overall social skills inventory and sub

dimensions. Özçep [43] underlined that there are similarities in ranking the social skills sub dimensions of male classroom teachers according to the arithmetic average. This finding of the study are similar to the findings obtained from the current research. The reason for such a result may stem from the fact that the activities are directed more towards the female students than the male students, or the length of time allocated for the application of the program.

The emotional expressivity and social control sub dimension scores of the female students were found to be higher than the male students in the post-test applied in the study. The increased ability of females to send emotional messages in comparison to males shows that they are more active in their social relationships and have more self-confidence in this respect. Deniz, Hamarta and Arı [44] found in their research they conducted on the effect of the affiliation styles of university students on their levels of social skills and loneliness that the emotional expression level, emotional sensitivity level, social control level and total social skills of female students were found to be higher than male students. This finding is supportive of the present study. Resultantly, it can be seen that after receiving bibliotherapy education, females retain the ability to adapt their behaviours according to their situation, developing the skills of playing a role, expressing themselves and maintaining their social adaptivity. When similar studies are investigated, the following results are obtained; Kazdin and Raine stated in their study that females exhibit more social skills than males [45]. Aktı [46] and Dicle [47] stated in their study that the gender variable creates a significant difference in the social skills scores and social skills levels of females in comparison to males. Furthermore, it was concluded from the study conducted by Seven and Yoldaş [45] that the social skills levels of female students were better than male students. This research has similarities with the current study in terms of the fact that the female students have higher scores than male students regarding their general social skills.

Nevertheless, it can be seen that the male students' scores in the sub-dimension of emotional control were higher than those of female students. Based on this result, it can be said that the skills of the male students in combining certain emotions and hiding their feelings under a mask in an effective manner is better than the female students. Hence, it is obvious that bibliotherapy education contributes to male students in terms of developing emotional control skills. Kalafat [26] stated that male university students obtained higher scores than female university students in terms of emotional control features. Furthermore, the study conducted by Bedir [48] shows that there is a significant difference in the emotional control sub dimensions in favour of male classroom teachers. The findings of these two studies have similarities to the findings of the current study.

When the findings of this study are evaluated in the context of the sociology of education, the first observation is that the participants in the study contributed to the socialization process. Bibliotherapy training has positively affected the socialization skills of school counsellor candidates. Therefore, it is seen in this experimental study that social change can be realised through education. It was also found that females and males gained different scores in terms of social-emotional skill acquisition in experimental practice. Therefore, it has been seen once again that the gender factor can be effective in learning environments. Based on the findings above, it should be said that the university in which the research was conducted can be considered as a social system.

5. Conclusions and Recommendations

Resultantly, the effect of the bibliotherapy method on the personal social development of students was analysed comparatively and separately according to the sub dimensions of the social skills inventory. While there was a differentiation in favour of the females in terms of overall social skills and social expressivity, no differentiation was seen in the other sub dimensions of the scale. No differentiation was observed in male students regarding the overall social skills and the sub dimensions of the scale. It can be said that female students exhibited more development than the male students in terms of emotional expressivity and social control. It can also be stated that male students showed more development than female students in terms of emotional control. Yükselgün [49] found that there was a significant difference between female and male students in a study comparing the social

skill level scores of females and males according to their genders. It was found that female students have higher social skill scores than male students. In this study, it is concluded that female students' social-emotional skill scores are higher than the scores of male students. Bibliotherapy education given within the framework of the research has shown less effect on the use of social emotional skills by male students than by female students.

The following recommendations can be made based on the results of the study:

- Based on the fact that there is no significant difference between the pre-test and post-test scores of the male students in this study, it is believed that activities differentiated according to gender in bibliotherapy education should be implemented. In particular, male students, just like female students, should be provided with opportunities to increase their social emotional development.
- Considering the post-test results of the female students, it can be seen that they obtained lower scores than male students regarding emotional control skills. Taking into consideration that similar results were obtained in the literature, it can be commented that further studies should be conducted in order to determine how females can increase their emotional control skills.
- In terms of the bibliotherapy studies that will be conducted going forward, it will be beneficial to consider individuals of different ages as the basis and to focus on issues other than social-emotional skills.

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