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Introduction: Mastering time and personal and social development

Dost thou love life?, asked Benjamin Franklin (1706-1790), immediately continuing, *Then do not squander time, for that is the stuff life is made of*. Life is time, and time, life; so those who love life make good use of time because life is the time they have (Pérez Ibarra, 2016)¹.

Nothing is as personal or egalitarian as time, because we all have the same amount — 24 hours a day — contrary to what happens with personal talents or material goods, which generate stark differences between human beings.

Seneca addressed the perceived shortness of life, noting that it is not that we have a short amount of time, but rather that we waste it more often than we should, and asserting that life is long enough to achieve the most important things if time is used wisely, concluding that, *we are not given a short life but we make it short, and we are not ill-supplied but wasteful of it*.

Everyday expressions like "killing time", "don't put off until tomorrow what you can do today", "time is money", "wasting time", "time flies", "time heals all wounds", "any time in the past was better", "giving it time", "not having time" and "I'll do it when I have more time" all speak of the implicit meaning given to time, loaded with nuances linked to the levity and fragility of past, present and future eras.

The roots of this monograph lie in a realistic paradigm that is, however, full of positivity. Professionals in the field of education have the valuable task of providing guidance in making life decisions that are consistent with the optimisation of time management, which must be based on a firm belief in the finitude of life, a matter that helps us mature as individuals and increases the chances of giving more worth

to and having more appreciation for one of the most necessary assets: our time (Savater, 2007)².

The volume opens with an inspirational contribution by professors Bernal, Valdemoros and Jiménez-Eguizábal, who take a hermeneutical approach to the critical analysis of the perspective of time as a coordinate of personal and social experience as well as prevailing patterns that explain and justify the connections between time, power and education. They conclude that rethinking time and education entails a reconsideration of political decisions about education, in which they simultaneously observe obstacles and innovative possibilities.

The monograph continues with an essay written by professor Caride entitled "Educating and educating ourselves in time, pedagogically and socially", in which he identifies and integrates a broad range of epistemological, theoretical and conceptual, methodological and empirical approaches referred to in studies on time, asserting and defending the importance of time in educational and social research, in educational policies and in the daily lives of citizens, reflecting their achievements in ideas and practices that extend the learning to the entire life cycle.

Leisure time and inter-generational relationships provide the foundations for the proposal by research professors Alonso, Sáenz de Jubera and Sanz, who present their findings from a comprehensive analysis that places the focus of educational and social attention on leisure time spent by grandparents with grandchildren before the pandemic and the perception that the children have of the personal development that takes place during those moments shared with their grandparents, thus opening up new paths for reflection and action that call for social and family intervention geared toward facilitating, stimulating and rebuilding time shared between grandparents and grandchildren to foster two-way personal development among both generations.

Professors Codina, Valenzuela and Pestana have chosen in their research to combine diverse aspects of daily life, such as time features of work and co-existence conditions, with two attitudinal manifestations that are highly involved in human development: time orientation and procrastination. They provide interesting findings that help facilitate the potential in people to master or control time.

Then there is an article on an imperative and timely subject matter, authored by Muñoz-Rodríguez, Torrijos, Serrate and Murciano, who take a qualitative approach to analysing time management and the perception of hyper-connected time among young people. They confirm that a young person's identity construction is like a continuum criss-crossed with different virtual and in-person times and spaces and that those young-

sters with less parental control in managing time need to have stronger mechanisms of self-management and self-regulation. The authors support a pedagogical discourse focusing on designing and bolstering activities that help establish healthy inter-personal relationships, social and communication skills and time management in scenarios that afford long-lasting benefits beyond mere entertainment.

The monograph ends with an article by professors De-Juanas, García-Castilla and Ponce de León, who examine time and the way it is experienced from a social-educational perspective, identifying how young people in difficult social situations use and manage their time, based on the information provided by the professionals entrusted with their care, custody, mentoring and education, as well as identifying the social-educational intervention actions that optimise the management of their time. This topic is essential in helping young people in difficult social settings live a full life, with legitimate opportunities and aspirations.

Education, power, identity, leisure, politics, inter-generationality, management, action, vulnerability and procrastination are some of the concepts present in this monograph, tracing an intriguing constellation of reflections on the past and present, which are bound to lead to highly valuable pedagogical actions in the future.

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Notes

¹ Pérez Ibarra, A. J. (2016). La administración del tiempo: una prioridad en la vida. *Revista de la Universidad de la Salle*, 69, 193-205.

² Savater, F. (2007). *El valor de educar*. Barcelona: Ariel.

Time, power, and education. Rethinking the construction of personal identity and educational policy decisions

Tiempo, poder y educación. Repensando la construcción de la identidad personal y las decisiones de la política educativa

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Abstract:

Social conditions of current life do not exactly constitute an ideal framework for the serene implementation of a balanced temporal perspective in the educational system. The article tries to contribute to: 1) substantiating the anthropological value of time, showing the decisive character that, in the current circumstances of accelerated change, the time domain has in the configuration of personal identity; 2) with a more applied nature and awareness of the interaction between time, power, and educational action, rethinking the meaning and scope of today's educational policy decisions.

Methodologically, we adopt a hermeneutical approach in which we critically analyse the temporal perspective as a coordinate of personal and social experience, as well as the predominant patterns that explain and justify the connections between time, power, and education.

We show how, within our individual possibilities, the balanced organisation of time contributes to achieving a successful personal identity, strengthening the ethical impetus of the educational task and transforming our lifestyle. However, the encounters and dis-

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agreements between time and education also depend on the horizons of meaning that we adopt at the collective level, which leads to power being seen as an explanatory variable.

Rethinking time and education leads us to reconsider educational policy decisions, in which we simultaneously notice obstacles and innovative possibilities. The change in individual and collective lifestyles, linked to a balanced temporal orientation, is associated with complex interactive and not merely unidirectional socio-cultural dynamics.

Keywords: education, time, school time, change in attitude, personal identity, lifestyle, power, educational policy.

Resumen:

Las condiciones sociales de la vida actual no constituyen precisamente un marco idóneo para la serena implementación de una perspectiva temporal equilibrada en el sistema educativo. El artículo pretende contribuir a: 1) fundamentar el valor antropológico del tiempo, mostrando el carácter decisivo que, en las circunstancias actuales de cambio acelerado, tiene el dominio del tiempo en la configuración de la identidad personal; 2) con carácter más aplicado y conscientes de la interacción entre tiempo, poder y acción educativa, repensar el significado y alcance de las decisiones políticas educativas de hoy.

Metodológicamente, adoptamos un enfoque hermenéutico mediante el que analizamos críticamente la perspectiva temporal como coordinada de la experiencia personal y social, a la vez que los patrones predominantes que explican y justifican las conexiones entre el tiempo, el poder y la educación.

Mostramos cómo, dentro de nuestras posibilidades autónomas, la organización equilibrada del tiempo contribuye a alcanzar una identidad personal lograda, fortaleciendo el impulso ético de la tarea educativa y transformando el estilo de vida. Ahora bien, los encuentros y desencuentros entre tiempo y educación también dependen de los horizontes de sentido que adoptemos a nivel colectivo, lo que conduce a revisar el poder como variable explicativa.

Repensar el tiempo y la educación nos conduce a la reconsideración de las decisiones políticas educativas, en las que advertimos simultáneamente obstáculos y posibilidades innovadoras. El cambio de los estilos de vida individuales y colectivos, vinculados a una orientación temporal equilibrada, se encuentra ligado a complejas dinámicas socioculturales interactivas y no meramente unidireccionales.

Descriptor: educación, tiempo, tiempo escolar, cambio de actitud, identidad personal, estilo de vida, poder, política educativa.

1. Introduction

In the first part of his *Criticism of Pure Reason*, Immanuel Kant (1781) de-

finied time as an intuition, the precondition of all experience, and a priori form of sensitivity. As Louis Lavelle (1945)

stated, inapprehensible and irreversible, time emerges where the absolute of existence and non-existence seem to be confused. Although we have been able to act prodigiously in space, shortening distances in a way that was unsuspected until not long ago, we cannot do the same with time and instead debate between a glimpse of the eternal and the pain of its impassive, inexorable flight, even if it goes at a different speed — to paraphrase William Shakespeare in his well-known comedy *As you like it* (1599, act III, scene II) — walking, trotting, galloping, or stopping.

Subjugated by consumption or by its appeal, most individuals nowadays inhabit a society characterised by fluidity and movement, by the haste of the typical life of the effects of globalisation, progressively distanced from the founding principles of modernity that illuminated the preceding two centuries. This restlessness extends unlimitedly, emanating from a life disconnected from tradition and uncertain in the face of the future. These are the "hypermodern times" to which Gilles Lipovetsky (2006) referred. Anxiety, fear, or anguish often win the battle against the small pleasures of everyday existence.

Faced with the postponement of gratification as a classic sign of self-control, the most representative behaviours of the contemporary world could be considered to be affected by the "syndrome of impatience", invoking Bauman (2011, p. 109): "In the volatile world of liquid modernity ... walking is better than sitting, running is better than walking, and surfing

is better than running." Human existence thus flows through hundreds of scenarios, without the pursuit of any purpose in which the various temporal dimensions could find some point of equilibrium.

In this society of instantaneous change, frequently erratic, the configuration of identity remains intimately linked to the temporal dimension. To the extent that people have the ability to reason, remember, and imagine, our welfare depends on a broader view of our lives that integrates its particular moments into a narrative. Our story-thinking contributes significantly to our welfare in a way that cannot be reduced to other characteristics that provide value (de Marneffe, 2013). This narrative gives form and texture to our existence, enabling the various events to connect with each other and granting them meaning and value, while our life story continues to develop (Ricoeur, 1988). The temporal orientation we adopt, our awareness of and attitude towards time, together with other factors (traits of the historical-cultural age in which we live, conditions related to the generation of membership, family lifestyles, living conditions, concrete possibilities...) constitute a fundamental axis of the configuration of our identity.

Although their relevance is often unnoticed, our attitudes towards time have a profound influence on our lives and our environment. Research on the psychology of time has highlighted our ability to strengthen, promote, and change our behaviour by directing it towards goals of greater human fullness. Savater (1997, p. 39) states that with education "we

are not born to the world but to time.” Certainly, although we live in time like fish in water, our attitudes towards time can be transformed, giving rise to a new awareness of the value and meaning of existence through which we can fully embrace the temporal dimension while recognising its fleeting nature: “Our time is short and it will pass, whatever we do. So, let’s give it a purpose. Let’s use it so that our time is important to each of us and to all those whose lives we touch” (Zimbardo & Boyd, 2009, pp. 311-312). Within our individual possibilities, together with their rapid course — reminding us of the classic Latin phrase “Tempus fugit” —, the government of time fosters a decisive ethical and plenary impulse towards educational action.

Different signals lead us to reveal the decisive nature of time as a transversal axis for understanding educational action, sensing how agreements and disagreements between time and education also depend on the horizons of meaning that we adopt at the collective level. The consideration that time is an adjustable aspect within institutional spaces is still evidence of its link with power as an explanatory variable, making an in-depth examination of the meaning of educational policies more relevant.

In a time of uncertainty and complexity and in the face of threats of chaos, democratic societies need to educate their members as free citizens, capable of participating in political deliberations and decisions. Therefore, current pedagogy (SI(e) TE Group. Education, 2018) cannot give

up delving into the different rationalities that make it possible: creative and critical, and not just instrumental. Such a purpose seems unfeasible to us without reconsidering the temporal dimension in the area of political decisions.

In the context of qualitative research, we take a hermeneutic approach (Callejo, 2010), seeking to critically analyse (Fairclough, 2010; Luke, 2001) the most relevant scientific output on studies in which attitudes towards time are seen as configuring personal identity, as well as on the systemic link between time and education from a policy-development perspective.

We carried out a study to contribute to furthering the specific focus on time as the coordinate of personal experience as well as the environment in which we live our individual and collective existence. We also analysed the predominant patterns, aiming to highlight key elements for explaining and justifying the connections between time, power, and education in today’s educational systems.

In this regard, we propose the following main objectives: 1) To reflect and provide a basis for the anthropological value of time, specified in the attitudinal realm, showing the decisive role that its domain currently plays in configuring the personal identity achieved and in one’s lifestyle; 2) to analyse the interaction between time and power, revealing the main potential elements of change and points of controversy, as well as the influence of the episode, the conjuncture,

and the long duration on the priorities, mechanisms, and agendas of current educational policies.

2. Attitudes towards time. Critical review

Contemporary research on the psychology of time has specified the *temporal perspective* as the personal attitude, often unconscious, that we have towards time and towards the process through which the continuous flow of life is structured into categories that give order, coherence, and meaning to our existence. A given temporal perspective projects certain time-related attitudes, beliefs, and values. Zimbardo and Boyd (2009) found six well-known temporal perspectives: negative past, positive past, fatalistic present, hedonistic present, future, and transcendental future. In addition, a temporal model of subjective well-being has been proposed, influenced by the contributions of Zimbardo, such as 3P (Durayappah, 2011), which, in addition to providing an explanation, seeks to unite disparate theories and measures, under the three temporal states of the present, past, and future. This model indicates how each state is relevant to the comprehensive assessment of subjective well-being and how each state is different but connected to the rest.

Based on decades of research on the psychology of time, it is inferred that an optimal combination of temporal perspectives facilitates the choice of the most appropriate one for each situation, extending our gaze and attention to the full

range of human experience. According to the most contrasted studies (Zimbardo & Boyd, 2009), a balanced and flexible temporal perspective brings together the following relationships: strong positive past, moderate future, moderate present, weak negative past, and weak fatalistic present. Such a combination offers: roots that connect us with family, tradition, and our cultural legacy; confidence in our ability to face the challenges of the path without turning away from our destiny; energy to appreciate the goodness of existence and to experience the joy of living; and resistance to diverse pessimistic influences that can affect us throughout our lives.

New studies confirm the value of a balanced perspective of time for personal happiness, helping to retain or improve it. Simons, Peeters, Janssens, Lataster, and Jacobs (2018) have highlighted the moderating role of age in the association between the perspective of time and happiness. During the aging process, the negative association between a negative past perspective and happiness is weakened.

Recent research with adolescents between 11 and 16 years of age provides interesting results to understand what they consider a priority to achieve full satisfaction in life (Crous, Casas y González-Carrasco, 2018). This state of fullness is associated with the appreciation of the little things of daily life, the awareness of being a just and honest person, as well as the feeling of making others happy. That is, the feeling of fullness is associated with a balanced disposition of time, capable of facilitating the jour-

ney on paths that lead to personal and social development.

There is evidence of a link between participation in well-being and patterns of time usage, which does not seem confined to any particular culture (Gao, Wu, & Zhai, 2015). Holistic well-being is associated with a distribution of time spent on leisure, social, work, and educational activities. It follows that people are happier when they spend their time in dignifying experiences and the development of meaningful social relationships than when they spend it on material goods (Sircova et al., 2014; Sobol-Kwapinska et al., 2018). Personal strengths, such as gratitude and vitality, predict positive changes in satisfaction with life over time. This predictive value also includes children suffering from serious adversities (Chaves, Hervás, García, & Vázquez, 2016). After certain negative life events (death of a close relative, unemployment, disability...), changes in subjective well-being experienced can be buffered by different resources. Recent research highlights the ineffectiveness of material resources to counteract negative events, revealing instead that religious resources show the greatest power of buffering, above social and personality resources (Kuhn & Brule, 2019).

These investigations converge with the different strategies associated with the temporal perspectives that Sonja Lyubomirsky (2008) indicated increase people's level of happiness: past perspective (expressing gratitude, avoiding thinking too much or brooding, learning

to forgive), present perspective (acting generously, cultivating relationships, increasing flow experiences, savouring joys, and caring for the mind), and future perspective (cultivating optimism, developing coping strategies, setting goals, caring for the body, and cultivating spirituality).

3. Power and relevance of education for time mastery. Temporal competence and school system

Educational personalisation has a positive impact on the different learning experiences within schools, but also on other areas of life, specifically, on planning one's existence (Kivimaki & Meriluoto, 2018; Moreno, 2020). The retention of customised learning content is not only perceived as useful, but it indirectly improves continuity intent (Mark & Vogel, 2009). In times of excessive attention to the merely productive, some counter-narratives of curriculum enrichment (Livingston & Doherty, 2020) question the overly simplistic measures of learning that can distort what really matters the most: the complete formation of the person.

Attention has been given in multiple studies to what we might call the *organisation of school time*, related to the use of formal learning in daily educational activity. Historically, from the perspective of educational personalisation, for example, the relevance of this variable in educational practice has been emphasised to distinguish between objectives for the mastery of learning and fields for cultural development and creativity (García Hoz,

1988), which underlies the technique of *Mastery Learning*, devised by Bloom (1968), derived in turn from Carroll's model of school learning (1963), based on the individual need for time to learn something and not on the amount of what can be learned.

Moreover, referring to the school system in general, there has been no shortage of criticism of the repetitive and impractical exercise in many teaching styles, as well as the widespread assertion that a subjective perception of time changes depending on whether or not there has been learning characterised by engagement — harming disadvantaged students either way (Gimeno Sacristán, 2008).

Perhaps, in this historical moment of the curriculum, the reflection on the relationship between time and school organisation in the context of knowledge society will also lead us to question “time in the organisation” (Vázquez, 2007), to open up to a greater connection of personal time with the different spheres of life, broadening the horizon of education towards goals of greater fullness. Research in the teacher sector has found the positive relationship established between psychological well-being and time planning and between the possible enjoyment of the task of educating and the achievement of some organisational temporal level (Eldeleklioglu, Yilmaz, & Gultekin, 2010).

Indeed, it is a question of the current demands of “lifelong learning” not being reduced to an imperative of survival in today's complex societies, but rather to be

able to question the meaning of our existence, distributing our time when carrying out everything that allows us to achieve a more successful life. The extent of the problem is thus increased, not limited to *Krónos*, chronological time, organised and programmed, but open to *Aión* and to *Kairós*, vital, human, and formative time, in a Bergsonian key, a time of creation (Sánchez-Serrano, 2018).

Judy Wajcman (2015) shrewdly revealed the obstacle between new technologies and society. Accelerating the pace of life is still evidence of the interconnections between speed, technology, and workplace and leisure settings. The widespread perception of a lack of time has become a social circumstance conditioning our individual and collective well-being. To be specific, the imbrication between new technologies and society is what leaves us margins of (re)action to redistribute time and channel new uses more in line with our authentic human condition. However, amid excessive accelerations, we find the obstacles of our constitutive slowness. The delay allows us to value our past while profiling the future. Without waiting there is no growth or true development, as life is made up of events and hope: “*Kairós*, the happy moment, always presupposes waiting: that time, which is sometimes a torment, which we —beatific— sometimes lose, and which is always a gift” (Köhler, 2018, p. 138).

Schools that present stimulating cultures for professional development take care of the mastery of time (Engels, Hotton, Devos, Bouckennooghe, & Aelterman,

2008). The decisive importance of the temporal dimension is currently noted in the demand for a school governance that goes beyond the mere bureaucratic function, trying to articulate formal learning with non-formal learning, diverse educational spaces and times. Moreover, progressively, in the virtually increasingly mediated educational systems, the processes become more relevant than the spaces themselves, and learning time is predominant over the place where one learns (García-Gutiérrez, 2015). Thus, a new type of school governance is needed, especially adapted in terms of planning, coordination, and evaluation of the educational systems (Bernardo, 2020). This does not imply institutional uniformity, but quite the opposite: “the educational impact of this *ethos* (of the educational centre itself) is not linked to a single teaching system but acts in very varied socio-educational contexts” (Ibáñez-Martín, 2017, p. 80).

There is a widespread purpose of providing effective responses to the global challenge posed by the new economic demands of the knowledge society. No one questions the urgent need to meet such fundamental demands for people's material development. But, at the same time, to avoid any drama, we may be in a historical moment conducive to the reformulation of the market and of humanism, where we can recover the primacy of human dignity, reflected in educational practices and the policies that regulate and order it. In this sense, we are not exaggerating when, extending the proverbial warning of Benjamin Franklin (1945)

to a young trader, we state that ultimately, time is not only gold, but it is all we have.

4. Time and power in education

Taking time seriously, driving its existential distribution towards human fullness, reconfiguring the recurrent procedures of building personal identity, as we are suggesting, even if it is an old concern of humanity, is not reflected in educational practice or, to a large extent, in the very design of specific educational policies.

Much of the current policy-making assumes the meaning of time within an exclusively quantitative perspective, as a neutral and standardised parameter. In everyday school life, such an understanding of time can lead to excessive concern for the assessment of widely established characteristics or indicators, inducing students to pursue a predetermined path that also homogenises everyone's rhythm and temporal dedication. Unequivocally, there is a deep ethical consideration in the current understanding of the complexity of time and the criticism of reductionist approaches to time, also reinforced by today's philosophy and science (Bates, 2019).

Within the framework of global educational reforms, the principles associated with the simple quantification of the educational process, often in a managerial and easily disseminated fashion, seem hegemonic in many parts of the world. (Díaz, Kawada, Chávez, & Monzón, 2019).

Although criticism is emerging from various sectors close, more or less, to educational practice, the widespread perception that this standardisation-prone approach is the most adequate for solving the problems that have an impact on contemporary education systems seems to be spreading like wildfire. This perspective may have contributed to the improvement of certain aspects of performance in the public service provided by education, but at the expense of the perception that this service increasingly resembles a standardised production-line. However, only collective solutions can be provided by the state, often far from the real situations where educational projects take place. More independence and flexibility of schools is needed to implement those changes aimed at preventing obvious inadequacies and enhancing key elements such as adopting a balanced temporal outlook. A true pedagogical autonomy of time, the best way of governing time is illustrated between institutional, organisational, material, functional, and personal tensions, which continue to represent mechanisms and power disputes.

It is worth remembering that the idea of what constitutes a good education is not reduced to the strictly cognitive and academic sphere, but is also open to personal opinion, which tries to reconcile, as far as possible, quality and equity. Acquiring lifelong learning skills, developing self-esteem and interactive competence, achieving sustainable temporal competence, and increasing our chances of being happy are, among others, fundamental aspects to achieve full identities,

mature personalities, expanding our understanding of what we consider a good education. Political decisions should pay more attention to student behaviour and non-academic growth. As Michael Fullan (2005), a well-known theorist of change once said; sustainable leadership, such as that which our time requires, is only possible if we improve the ability of the educational system to engage in the complexities of continuous improvement consistent with the deep values of the person's goals.

Curriculum policy contributes significantly to a culture of technical responsibility through its complicity with performance, standardised testing, and rankings. The demand for compliance with technical requirements can divert attention from the profound philosophical and ethical questions about the educational purpose, while risking there being less possibilities for the autonomous development of the main characters of educational action (Winter, 2017).

Socially practiced assessments, sooner or later, change behaviours; consider, for example, how university assessments (QS World University Rankings, the Academic Ranking of World Universities or the Shanghai Ranking...) are influencing current university policy and management. Apart from the advantages or uses of the concern for greater efficiency of the educational system, the quality and equity required of this system are not reduced to this rational perspective, but require an equally firm dedication to social cohesion and moral integrity, placing respect for

human dignity at the forefront. Without the inclusion of a new temporal perspective, such as the one described above, successfully undertaking this challenge will become more improbable.

Imagination is needed to find systemic formulas capable of generating more balanced political decisions by providing complementary relationships between common, standardised, and new inclusive and participatory possibilities, creating humanisation-enhancing conditions. Regarding assessment, the OECD (2013) calls for the search for synergies for better learning and the necessary balance between summative and formative assessment. It is a question of progressively approaching greater intelligent responsibility in education (O' Neill, 2013), promoting sustainable practices that are more likely to be compatible with diversity.

5. The role of time in the genesis and structuring of current problems in educational policy

With respect to the legitimacy of other options, we do not intend to make a kind of problem inventory or a record of all possible fields of study related to the educational policy arising from the review of research approaches and practices. We prefer to select the most important theoretical and practical problems that respond to real life, the old and new fields of research (Puelles, 2013), which today, by virtue of some mastery of time, attract the attention of researchers in their attempt to understand how the educational

political community is constituted from its static structure, how it develops, and how it should be formed. A review of this list of problems brings us closer to the current contrast between the significant difficulties presented by the consideration of personal temporal competence and its social impact on the field of political forms of education.

- *Language* as a way of interpreting and understanding political reality, becoming a transformative system and an innovative mediation to explain democratic transitions (Reano & Garategaray, 2018), one of whose most significant exponents can be seen in the study of the relations between the State, law, society, and education, with important implications in the legal framework of education, highlighting the unique evolution experienced in the field of the right to education and its universalisation (Arrufat & Sanz, 2020). Interest in studying these aspects can be found in the academic offer of universities from countries as diverse as Ireland, the United Kingdom, and Sweden. A hotly disputed current issue relates to the new forms of political language that are approached through social networks (Hernandez-Santaolalla & Sola-Morales, 2019), with important repercussions on public opinion and the attributes of (post)truth (González, Romero-Rodríguez, & Larrera-Oña, 2019) that certainly require greater attention in the curricular policy. Social networking technologies are modifying behaviours and scena-

rios of human interaction, but they are also closely linked to the social construction of time (Pesce, 2014). In this sense, educational action has enormous potential for change in terms of reconsidering the temporal dimension in individual and collective life.

- New *actors* who transform the political *stage*. Our voices are heard once more, and the experience, subjectivity, attitude, and feelings developed by political actors are rehabilitated, giving way to new dimensions for the understanding of political-administrative norms and declarations, as well as the mechanisms of collaboration, participation, commitment, educational pacts, and the more significant practices of politics. From this, suggestive works on so-called *community studies* have been developed, and progress has been made on personality and politics, giving rise to today's thriving political psychology. Records and indications on these topics appear in the educational policy programmes of France, Slovakia, and Hungary. Scenarios and actors that highlight an interest in political and educational behaviours in a context of multimedia, meta-data, and online globalisation (Bonnes, Leiser, Schmidt-Hertha, Rotty, & Hochholding, 2020), as well as research on inclusive education and society, focused on inequalities, school dropout and, in general, vulnerable and disadvantaged groups, inside and outside of school, as a priority area (Gil Cantero, 2019; North & Fiske, 2016). A struc-

tural problem of a social nature, such as the adoption of a new orientation of temporal competition, could turn into specific educational concerns thanks to certain initiatives, similar to how sensitivity to lifelong learning policies managed to turn youth unemployment (a structural economic problem) into an individual educational concern (absence of specific competences) (Valiente, Cansada-Munrech, & de Otero, 2020).

- Changes in the *narrative* of power, mechanisms of legitimacy and ways of operating in educational systems (Fernández Soria, 2013; Heimans, 2012), as well as in the explanation and criticism of the main processes of democratisation, socialisation, and political inculturation in the different educational models, also preventing their risks and impostures (Martín-Lagos, 2018). Italy, the United Kingdom, Germany, and Cyprus, among other countries, are paying specific attention to these problems. It is fair to say that there is a new political-pedagogical culture, with important changes in the consideration of the distribution of time, as well as the methods and mediations with which the curriculum is managed. In various ways, concerns, sometimes two-sided, between a chronological concept of time, which somehow confirms the objectivity of human behaviour, and a kairological notion of time, more focused on human emancipation, emerge (Decuyper & Van den Broeck, 2020).

- Obvious advances in the consideration of education as a public policy and the educational administration as a *techné* oriented to the achievement of objectives. In recent years, entrepreneurship policies, excellent educational systems oriented towards excellence, cooperation with development, and education as a public policy stand out (Griffiths, 2012; Jiménez, Matos, Palmero & Ragland, 2017; Martínez Usarralde, 2011). Remember, in this context, the strong impulse of the instrumental rationality of the educational policy experienced in the eighties of the last century, materialised in different time planning techniques in the educational systems (Jiménez, 1984), which are currently continued and reinforced by different studies on the effects of time on efficiency and internationalisation processes that are so interesting to the field of social sciences (Fuentesláz, Garrido, & González, 2020). Following on from this is a horizon of possibilities for organisational changes that enable personalised learning practices, in a terms of differentiation and complementary relationships with time for integral human action.
- The planning and standardisation of educational work, depending on the chosen social form of coexistence, is reflected in research programs that are cultivated in universities in the Netherlands, Latvia, and the United Kingdom (Jiménez, Palmero, & Luis, 2013). It is a line of research of great interest that has solved important problems associated with the symbolic coherence of groups, the logic of collective action, and participation in educational management, as well as the explanation of school modernisation processes. Under these premises, education policy, far from pure cratology, will allow us to extend our knowledge of the content, programme, regulation, and social competence of political decisions as the action and result of power. Communicative rationality, closer to a kairological model of time, illuminates pedagogical possibilities focused on a pact and not a *diktat* (Ibáñez-Martín, 2017). It thus connects with some practical rationality (Strandler, 2015), capable of shaping the tension between the regulatory and reflective dimensions of real training contexts, between the necessary social accountability and the moral dimension that justifies the educational process.
- The innovative and creative potential of lifelong learning, a reform movement that is admirably managing to provide universal access and continuous education to all individuals, opening up conventional educational spaces and contents and making organisation and educational timetables more flexible (Morris, 2019). A major educational problem is the permanently unstable balance between a personal development model—humanistic model—and a model of human capita—human capital model— (Regmi, 2015). Education can be effective as an instrument of “soft” power (Antonova, Sushchenko,

& Popova, 2020), finding formulas that overcome old antinomies, albeit from a long-term perspective.

- Modification in the spatial coordinates of educational decisions, *supranational policy* that emphasises cooperation and territorial solidarity. We are challenged to coordinate national and supranational decisions — specifically on curricular policy — and consequently a process, still open, of prescription and pedagogical normativity, including results of the evaluation of international bodies with the added claim of a long-term perspective that surpasses the traditional episodic and circumstantial characteristic of educational policies (Dijkstra & Athanassoglou, 2015; Pedró, 2012; Represas, 2015). The influence of international agencies in education policy-making at all levels of governance is partly due to the creation and dissemination of educational indicators, more than a few of which are linked to a knowledge of economics and its demand for short-term results (Rutkowski, 2008). Leaving the economic loop is a challenge that encompasses not only a reconsideration of the temporal perspective of individuals and societies, but also the fate of genuine human development.

6. Conclusion

The relevance of time-balanced government is more important than ever because of the volatility of modern life. Mastery of the various areas of our existence, far from mystifications close to ab-

solute autonomy, constitutes a renewed pedagogical requirement that calls for a second look at our relationship with time.

We find it impossible to control physical laws, but we can manage the referential contexts of time. Better management of our temporal orientation, distinguishing some moments from others, some spaces from others, thanks to a more mature distribution of the time available and a better knowledge of what can benefit or harm us according to the circumstances, can profoundly modify our behaviour and contribute to greater general well-being. Increasing our temporal competence, by forming new attitudes more in line with the balance of the usual temporal perspectives, requires a new educational sensitivity, associated with a vindication of human dignity and its demand to live life to the full.

But the change of life that harbours a new individual and collective temporal orientation also calls for some transformation in our ways of life, our lifestyles. Surely, the crux of the problem lies in the spaces between the complex connections of the contexts of educational practice and the instances where the decisions that mark the frameworks of coexistence are generated. Rethinking human time and educating our temporal perspective leads us to the very reconsideration of the political decisions that condition the circumstances of a shared life.

The implications and patterns of educational action, inside and outside the school system, in new scenarios where

time prevails over places, lead to the search for a conciliatory approach between the regulatory requirements and the demands of a new distribution and individual and collective use of time. Channeling these demands requires their inclusion among the new priorities of the political agendas of local, national, and supranational education.

Indeed, the transfer of such pedagogical ideals to the widespread practice of education forces us to reflect on the influence of the episode, the conjuncture and the long duration of the priorities, mechanisms, and agendas of the educational policies, revealing the intricate links that emerge in the relationship of time with power. In this regard, we simultaneously warn about certain innovative obstacles and potentials in current political decisions: communication as a mediating and transformative system, the emergence of new actors on the political scene, certain changes in the narrative of power itself, the search for new combinations of different rationalities of the educational phenomenon, the unexplored potentials of lifelong learning requirements, and the coordination of different levels of political decision-making.

With its kaleidoscopic presence, power infiltrates the entire plot. And it is not limited to the political prescriptive sphere but is also experienced in the educational potential of educational practice itself. The reconfiguration of individual and collective lifestyles associated with the temporal dimension is not due to one-way decisions but is open to the interactive

complexity of current socio-cultural dynamics. Not only are the greater well-being of everyone and an increased fulfillment of life at stake, but also the creation of a fairer and easier world to live in. No one is excluded from this task.

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To educate and educate ourselves in time, pedagogically and socially*

Educar y educarnos a tiempo, pedagógica y socialmente

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Abstract:

This article emphasises the characterisation of time as a human social and cultural construct, while not neglecting other perceptions and representations of it. Reflections on the nature and scope of time have always interested the sciences, as a time of times, fostering an interdisciplinary dialogue which calls to all branches of knowledge including the educational sciences and, in particular pedagogy, as they accept the challenge of educating us about time as a civic task in which all of civil society must participate.

This piece, which takes the form of an essay bringing together different documentary sources, proposes two main objectives: a) to identify and

integrate a wide set of epistemological, theoretical-conceptual, methodological, and empirical viewpoints used in studies of time; and b) to affirm and assert the importance of time in educational and social research, educational policies, and people's everyday lives, projecting their achievements into conceptions and practices that extend learning to the entire life cycle.

Time educates and we educate ourselves in it, and so it is necessary to rethink — pedagogically and socially — its meanings in a society that is open 24 hours a day and is symbolically and materially globalised. The complexity inherent in processes of social, cultural, technological, economic, etc. change and transformation presents

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us with the challenge of imagining an education without spatial or temporal limits. It also forces us to broaden its horizons as a right in the service of the people and the planet. This is stated in the Sustainable Development Goals and in their framework of action, in an attempt to guarantee quality inclusive, and equitable education that promotes lifelong learning opportunities for all. Paradoxically, in their goals, strategic approaches, means of implementation, and indicators, time is absent, unlike space and communication.

Keywords: social times, school times, social education, lifelong learning, quality education, education system, education policy.

Resumen:

Sin obviar otras percepciones y representaciones acerca del tiempo, pondremos énfasis en su caracterización como una construcción social y cultural, humana. Las reflexiones sobre su naturaleza y alcance han ocupado a las ciencias desde siempre, como un tiempo de tiempos, alentando un diálogo interdisciplinar al que están convocados todos los saberes. También las ciencias de la educación y, en particular, la pedagogía, asumiendo el desafío que supone educar y educarnos a tiempo como un quehacer cívico en el que debe participar toda la sociedad.

Adoptando el formato de un ensayo en cuya elaboración convergen distintas fuentes documentales, planteamos dos objetivos principales:

a) identificar e integrar un amplio conjunto de miradas epistemológicas, teórico-conceptuales, metodológicas y empíricas a las que se remiten los estudios sobre el tiempo; b) afirmar y reivindicar la importancia del tiempo en la investigación educativa y social, en las políticas educativas y en la vida cotidiana de la gente, proyectando sus logros en concepciones y prácticas que extiendan los aprendizajes a todo el ciclo vital.

El tiempo educa y nos educamos en él, por lo que es preciso repensar —pedagógica y socialmente— sus significados en una sociedad abierta las 24 horas, simbólica y materialmente globalizada. La complejidad inherente a los procesos de cambio y transformación social, cultural, tecnológica, económica... nos sitúa ante el reto que supone imaginar una educación sin límites, espaciales y temporales. También obliga a ampliar sus horizontes como un derecho al servicio de los pueblos y del planeta. Así se declara en los Objetivos de Desarrollo Sostenible y su marco de acción, tratando de garantizar una educación inclusiva y equitativa de calidad, promoviendo oportunidades de aprendizaje permanente para todos. Paradójicamente, en sus metas, enfoques estratégicos, medios de aplicación e indicadores, el tiempo —a diferencia de lo que sucede con el espacio y la comunicación— continúa ausente.

Descriptor: tiempos sociales, tiempos escolares, educación social, aprendizaje permanente, calidad de la educación, sistema educativo, política educativa.

1. Introduction

For the artist Joseph Kosuth — whose work was noticeably influenced by Ludwig

Wittgenstein — time is a concept, object, and image. As one of the principal precursors of “conceptual art”, he depicted

this triple perception in his *Clock (One and Five)*, *English/Latin Version* (1965), combining on a 610 × 2902 mm panel, a working clock, a photograph of the same clock showing a different time, and the entries for “time”, “machination”, and “object” from an English/Latin dictionary with a brief explanation of what each of them means. Clocks softening and melting with the passage of time were also used by Salvador Dalí to illustrate the relativity of time, paying tribute in one of his celebrated works — *The persistence of memory* (1931) — to physics and the theories of Albert Einstein.

These two representations of time are very different from the one presented by the avant-garde composer John Cage when his work *4'33"* made its debut in 1952. In this piece, the musicians remain silent, without playing their instruments, for four minutes and thirty-three seconds, implying that time is a fragment of everyday life. They also differ from the works the British sculptor Andy Goldsworthy has produced over three decades. Goldsworthy travels the world creating figures using natural materials — leaves, branches, petals, ice, sand, water, stones, snow, etc. — which he leaves to their fate once they are complete, letting the passage of time finish off his work; he has only allowed five hundred photographs of these short-lived creations, in which time is another aesthetic resource, to be taken to show what once existed, before they self-destruct.

We turn to artistic creativity — without ignoring science — to present four “readings” of time as a social and cultural con-

struct. Or, perhaps, a human construct: in its excesses and in nothingness. The words that describe it — before, during, after, present, past, future, instant, succession, eternity, change, etc. — are loaded with hidden or visible questions that are open to many answers; few of them are definitive or exclusive, with most being provisional and complementary (Toulmin & Goodfield, 1990; Reis, 1994). According to Ángela Molina (2019), the responsibility for defining and interpreting time has moved from physicists to artists, creating suspicion of the logic on which these definitions and interpretations are based. Nonetheless, physicists have not stopped doing it, turning to time as one of their principal interests and objects of study. This has also been done by those in the humanities and the social sciences who extend the contributions made by the formal, natural, or “experimental” sciences, insisting — for centuries — on the need to provide knowledge with new perspectives on time and its circumstances.

Ways of counting time, conceiving it, and perceiving it are cultural and historically situated (Le Goff, 1991; Ramos, 1992), as are ways of knowing it and understanding it as thinking subjects. When recording it, without us being able to avoid it when expressing who we are, physical and social phenomena come into play, individually and collectively. These phenomena reflect — alongside other civilising processes — the confrontation between natural cycles and the bookkeeping artifices of calendars, regarded as one of the most emblematic instruments in the organisation, domestication, and command

of time. Anthropocentric, monochronic, and technical-rational doctrines that make human beings the measure and centre of all things, have contributed decisively to this being the case, with more or less historical significance.

The French and Bolshevik revolutionaries changed the secular calendars in use in their countries to show that in power one can “formally” modify relationships between society and time, albeit not for ever (Clark, 2019). And the Industrial Revolution, with its accompanying socio-economic and cultural upheaval, combined thorough social control of workers’ time — and, by extension, the time of families and social institutions, such as schools — with the progressive automation of their patterns of behaviour, subordinating personal decisions to the emerging concepts of capitalist production and work: individuals would have to learn to synchronise their activities without intermediaries, disciplining their behaviour through academic instruction, communal mechanisms of socialisation, and watches, which became another part of their clothing.

Since the end of the 20th century, digital technology has joined the analogue, mechanical, and electronic ones and has again revolutionised behaviour in almost all of the world: after thousands of years of guiding ourselves by the cycles of the seasons and the sun or looking at circular clockfaces, we constantly and even compulsively find we need computers and mobile telephones to set the time with pinpoint accuracy (Garfield, 2017). In this scenario, although it is tempting to believe

Castells’ hypothesis (1997) that in the age of the internet new information technologies will liberate us from capital’s time and the culture of the clock, this does not seem to be the case. Indeed, the corporations that supply these technologies do not set out to do so, in a society where the value of time no longer lies in the hours people have available but rather in the hours they lack to fulfil all of their obligations (Durán, 2007).

The Covid-19 coronavirus pandemic and its cruel pedagogy (Sousa Santos, 2020), confining hundreds of millions of people to their homes, mixing working time with rest time and leisure time, has, sooner than expected, led us into the 24/7 model of society (24 hours a day, 7 days a week), making an internet connection another requirement of the job market and for isolation and social connections (Crary, 2015), for the sake of protection and safety. Clocks are not disappearing: they are being integrated into or replaced by all types of screens, ceaselessly monitoring and supervising people who are chained to their networks, creating alerts, setting reminders and timers, scheduling events, etc. reaching unprecedented levels of sophistication and diligence. In her insightful reflection on the present, analysing the relationships between art and fiction, Gabriela Speranza (2017) warns that we cannot forget that clocks are the product of a history in which they were and continue to be instruments of power.

Norbert Elias (1989) also did this, noting that the bargain between clocks and humankind is a discouraging one. Both are

constantly changing as time passes: clocks change cyclically with the movement of their hands — and now increasingly their digits — while living beings change in a linear way, on their route to aging and death. Furthermore, when incorporating new technological devices, making visible and audible “realities” that are not touched, seen or heard, they create a new notion of time, psychologically and socially strewn with paradoxes and metaphors (Boscolo & Bertrando, 1996; Zimbardo & Boyd, 2010). Hence the insistence on an appropriate distribution of time, which for some authors means choosing slowness over acceleration, as something intrinsic to quality of life and happiness (Poelmans, 2005; Novo, 2000; Safransky, 2017).

One way or another, these authors show how our own temporal condition and the need to *have* time to be able to *be* in time (Heidegger, 2012; Cruz, 2016) complicate what we say about it. According to Boscolo and Bertrando (1996, p. 39), “this is probably due to the self-reflexive character of time (when we speak of time, we are still living in time) or the presence of a multitude of ‘times’ related to different levels of reality.” Furthermore, human experience is inseparable from the importance attributed to time as a symbolic and material category that affects very varied aspects of social thought and action (Elias, 1989).

We allude to a time of times that encompasses everything and everyone (Mataix, 1999), the understanding of which no branch of knowledge has eschewed. And although it is not easy to ponder, with suf-

ficient exhaustiveness and rigour, how and to what extent the sciences have taken an interest in studying time, it continues to be an endless source of knowledge that without it would lose much of its interest and, even, its *raison d’être* for humankind (Alfonseca, 2008) and the disconcerting world we inhabit. For Hawking (1989), time — and space — make it possible to go from the most everyday facts to the most fundamental and yet not least complex concepts in theoretical physics and the laws governing the universe, which do not stop questioning what we see around us. Nothing is entirely predicted in its coordinates. With the theories of general relativity and Edwin Hubble’s findings, what was thought to be “a unique absolute time” turned into “a more personal concept, relative to the observer who measured it” (Hawking, 1989, p. 221).

2. Grammars of time and scientific knowledge

Although it is through words that time makes visible many of the consensuses about its meanings, even the aspects of it that are supposedly most objective are not the same for everyone. While each day lasts 24 hours, each hour 60 minutes, and each minute 60 seconds, the experience of what takes place in them gives them other private and non-transferable durations: measuring time is one thing; the subjective experience of it is another. While it is a physical phenomenon in the former case, in the latter various structures interact, such as memory, attention, motivation, context, and the liberty inherent in situations.

This is highlighted in the commentary on the sensation of time that Thomas Mann builds in *The Magic Mountain* when he narrates the young Hans Castorp's singular experience of adapting to the habits of a sanatorium in the Swiss Alps where he went as a visitor and ended up staying as a patient. Speaking with his cousin Joachim Ziemssen, who has recovered from tuberculosis, Castorp says:

time *isn't* "actual." ... when it seems short, why then it is short. But how long, or how short, it actually is, that nobody knows. ... Space we perceive with our organs, with our senses of sight and touch. Good. But which is our organ of time. (Mann, 2005, p. 112-113).

This work, which its author described as a "novel about time", is a clear example of the emotional weight of time in the world of letters and in narratives about everyday life, masterfully captured in the work of authors such as Proust, Kafka, Joyce, and Kundera. Their pedagogical value, which we will not linger on here, is one of the issues pedagogy has not resolved with literature (Larrosa & Skliar, 2005).

Giving a convincing answer to any question that tries to establish what time is remains a challenge at the start of the third millennium, which neither lexicons nor dictionaries have been able to resolve satisfactorily. As María Ángeles Durán noted (2007, p. 20), speech "is rich in modulation of time, and where grammar does not reach, it turns to metaphors or interjections for help as well as the added effect of body language and tone." What verbs cannot express with their tools, temporal

adverbs, conjugations, and prepositions are expected to do.

In the most recent version of the *Diccionario de la Lengua Española*, the dictionary of the Spanish language published by the Spanish Royal Academy, which was updated in 2019, the word *tiempo* (time) has eighteen definitions. These include ones that relate to the weather ("hace buen tiempo" means "the weather is good" in Spanish), ones that relate to a grammatical category or to verb conjugations, to age, or to each of the parts of the same duration into which the rhythm is divided in a musical composition and performance. Neither the *Gran Enciclopedia del Mundo Durvan*, nor the *New Hutchinson 20th Century Encyclopedia*, the *Encyclopaedia Britannica*, the *Grand Dictionnaire Encyclopédique Larousse*, nor *Wikipedia, the Free Encyclopedia* have managed to perfect the definitions they provide in their successive editions and revisions. Turning to Saint Augustine (1990) by citing Book XI, chapter 14, of his *Confessions* often avoids going into denser explanations. That references to time are among the most familiar and commonly used in all languages does not stop them from being amongst the most elusive and mysterious.

If the best words, as Daniel Gamper (2019) suggests, are those that enable us to name the world, using them to maintain and reproduce it, statements about time — and times — have resulted in controversial approaches, focuses, decisions, actions, etc. that directly impact people's lives:

reflection on time and attempts to measure it are as old as humankind; the trace of these attempts is found in mythical tales, calendars, and the grammatical structure of languages. Many of the concepts that currently seem *natural* in reality conceal centuries of ideological debate and political conflict. (Durán & Rogero, 2010, p. 9).

And, inevitably, scientific, academic, and literary confrontation; but, if we focus on its most positive part, it also contains the opportunity to encourage interdisciplinary dialogue and shared knowledge.

It can do this on condition that it accepts the challenge of transcending the most reductionist and conventional readings, amplifying and diversifying the possibilities that understanding it offers (Gómez et al., 1981) in the field of the natural, experimental, and life sciences and in the social sciences and humanities. If, looking back, it has been this way, there is all the more reason for it to be so in future, following the lead of the multi- and interdisciplinary work that is being done in fields like chronobiology, chronopsychology, neuroscience, and artificial intelligence among many others. We should recall, with Asimov (1984), that time has always played a key role in the peaks of science, its “variables” being associated with discoveries that revolutionised the world of technology and thought, helping transform the social, economic, political, cultural etc. structures of its era.

For Ilya Prigogine (1997, p. 213), “the renewal of science is largely the history of the rediscovery of time.” Then and now. Indeed, the time of Parmenides or Zeno,

will not be the time of Aristotle, Saint Augustine, or Newton, and even less the times that Bergson, Heidegger, Sartre, or Einstein conceived. And although the metaphors and paradoxes of time “are born from and live in language” (Boscolo & Bertrando, 1996, p. 16), its realities embrace the life of each organism and living being, because

time is deeply embedded in our genes. The cells of the body, bacteria, plants, and other animals are capable of measuring time: in this sense, biological clocks are perfect adaptations to our environment that manage to synchronise astronomical time with the internal time of the organism. (Punset, 2011, p. 180).

In humanistic and/or social studies, interest in time in people’s lives is apparent in the work of numerous classical and modern authors: from Plato to Heidegger and Ricoeur, and including Aristotle, Husserl, Durkheim, Bergson, Merleau-Ponty, Sorokin, Veblen, Eliade, Bauman, and Giddens. In their works we can see that this is a scientific concern that, like so many others, was marked by gender until well into the 20th century, even though a considerable part of the uses of time and their impact on our day-to-day lives are found in the activities of women. This is shown in the reflections and/or research on personal and social times that are led and/or dominated by women from different disciplinary perspectives: philosophy, anthropology, history, sociology, psycho-sociology, law, politics, etc. (Adam, 1990; Balbo, 1991; Husti, 1992; Lasén, 2000; Romero, 2000; Valencia & Olivera, 2005; Tabboni, 2006; Durán, 2007).

In his analysis of the grammars of time and the problems of the globalised world, Sousa Santos (2006) underlined how the options available to us in the ecology of temporalities, must make all of the multiple times that come together in the past, present, and future visible. In them there are different scenarios (domestic-family, productive, environmental, etc.) and potentials, with those that appeal to citizens and their rights in liberty, equality, justice, or peace standing out. Comprehending time, learning *in* and *of* time, requires reasons and emotions that epistemologically, methodologically, and morally deny neither our humanity nor the values that most and best represent it in all of its diversity. Because talking about time is talking about ourselves and shared life (Tabboni, 2006), with its blessings and conflicts, between the public and the private, the sacred and the profane, work and leisure, social exclusion and inclusion, and so on, with everything they entail for the fullest exercise of the rights and duties that underpin coexistence.

3. Time and times in social research

That chronological indications are intelligible and expressible for us (Savater, 1999) explains why social studies *of* and *about* time—from the end of the 19th century to the present day—have taken an interest in topics, processes, situations, etc. that reflect the heterogeneity of their priorities in aspects such as the conciliation of family life and gender equality, movement and transport, working schedules and hours, the regulation

of markets and commercial centres, biological rhythms and their impact on health, the harmonisation of face-to-face and virtual learning, or dedication to caring for others, confronting or mitigating dependencies in order to favour personal autonomy or emancipation, etc. This variety reaches the methodologies and procedures through which information is obtained and processed, quantitatively and qualitatively, in research design and in their empirical expressions.

With less coordination than is desirable for a systematic, complete, and holistic study of time and times, they are aspects that motivate areas of knowledge, research groups and institutes, scientific societies, etc., whose headquarters—physical and virtual—are located all over the world: from the Research Institute for Time Studies (RITS) to the Grupo de Investigación Tiempo y Sociedad (Time and Society Research Group), which is affiliated to Spain's Consejo Superior de Investigaciones Científicas (CSIC - Higher Council for Scientific Research), as well as the International Association for Time Use Research (IA-TUR), the International Society for the Study of Time (ISST), the Deutsches Institut für Internationale Pädagogische Forschung (DIIPF), or the World Leisure Organization (WLO). In the case of Europe, the work done by the EUROSTAT observatory since 2008 through the Harmonised European Time Use Surveys (HETUS), in which participants from 18 countries record their daily activities in 10-minute intervals stands out for its scope and comparative nature.

By their own initiative or joining forces with other bodies linked to public administrations, universities, publishers, etc., these groups have for decades organised academic conferences and meetings complemented by the publication of their work in journals with a high relative quality index (JCR, WoS, Scopus, ESCI, etc.) such as *Times & Society*, *Journal of Leisure Research*, *Leisure Sciences*, *Leisure*, *Leisure Studies*, *Electronic International Journal of Time Use Research*, etc. In addition to these, there are documentary resources — books, reports, doctoral theses, supplements, audiovisual materials, etc. — dedicated solely to content relating to time and/or particular aspects of it.

In this context, without overlooking their interdependencies with other social times (family, work, leisure, etc.), the presence of school and educational times — especially since the early 1980s — has increased significantly in social debates, educational research, and the media. Their presence has also increased in reports compiled and/or spread by different national and international organisations in the European Union, the OECD, and UNESCO, facilitating access to comparative analyses that were until recently non-existent or not viable.

UNESCO includes teaching time in its World Education Indicators Programme. The OECD also does this, contemplating this variable within the international education indicators and analysing questions relating to it both in the Programme for International Student Evaluation (PISA) reports and in the Teaching and Learning

International Survey (TALIS). In the European Union, the EURYDICE network maintains a database of school calendars from Europe and periodically compiles information on teaching time (Egido, 2011, p. 259).

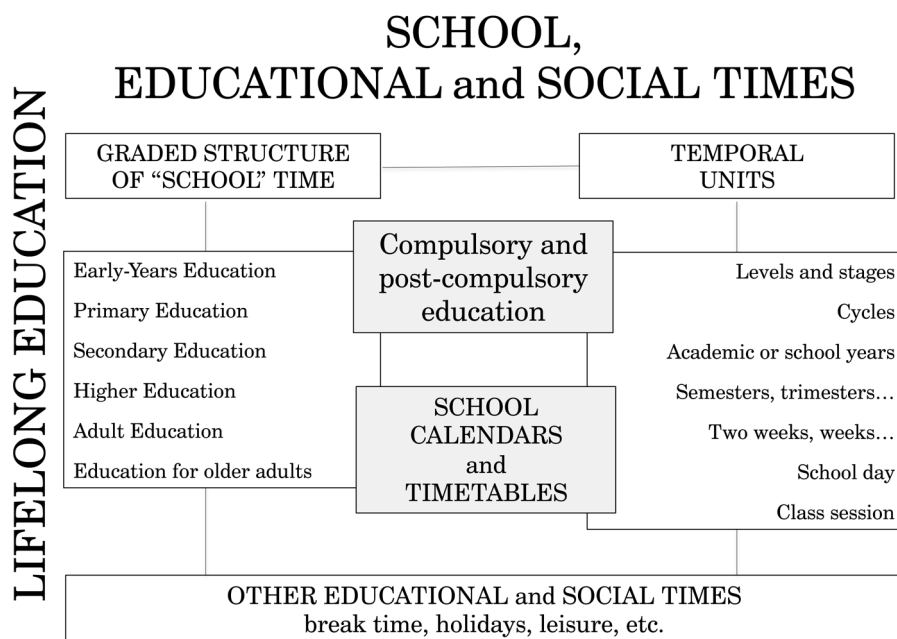
This network and its reports are part of the Education and Youth Policy Analysis Unit in the Education, Audiovisual and Culture Executive Agency (EACEA), providing sectoral, longitudinal, etc. studies of educational systems and policies in 38 countries, and since 1980, it has been recognised as one of the principal sources of information about education in Europe. The annual series (by academic years) since the early 1990s on the structure of teaching periods and the organisation of school periods, with data about their duration, start and end dates, holidays, and the school days they comprise are especially noteworthy. Furthermore, it reports on the state of the question in compulsory education/training in 43 European educational systems. The works by Pereyra (1992), Egido (2011), as well as the work coordinated by Gabaldón and Obiol (2017) are good examples of the interest in exploiting and interpreting the documentation on school periods that EURYDICE provides.

In education, as in other social practices, time is a flourishing “variable”, whose proposals and initiatives move among the realities and utopias of educating and being educated (Gadamer, 2000). A time which is valuable because of everything it activates and provides for communal life. A “civilising instrument”

(Compère, 2002, p. 11) of the first order when constructing our identifying features, educational institutions, and education in general, whose stages, cycles, levels, forms of teaching, organisation,

and sequencing of activities, etc. are strongly expressed through temporal expressions: early-years, primary, secondary, lifelong, adult, academic year, school day, etc. (Graph 1).

GRAPH 1. School, educational and social times.



Source: Own elaboration.

With the complexity that characterises it as a constituent, structural, and structuring variable of the institutional culture of schools and their relationships with communities and with society, time is the cause or origin of many of the problems that hold back educational reforms, the school environment, or the transition from education to active life. Unemployment is also a time.

According to Vázquez (1981), some of the most significant setbacks affecting education and pedagogy relate to time:

overloaded syllabuses, forgetting what has been learnt, uniformity in pace of learning, repeating years or continuous progress, etc. These often derive from mismatches between previously determined times, the objectives formulated, and the results achieved. Meanwhile, for Hargreaves (1996), time is an enemy of freedom and of teachers, preventing them from fulfilling their desires. It goes against their will, makes innovation difficult, and confounds the implementation of changes. Joseph Leif went further with an argument that thirty years later remains valid:

the problem of time and of the rhythms of school nowadays concerns all of the nation. Not just pupils, teachers, and parents, but also, as a result of holidays and time off, workers from all branches, including people in the hotel trade and employers. (Leif, 1992, p. 31).

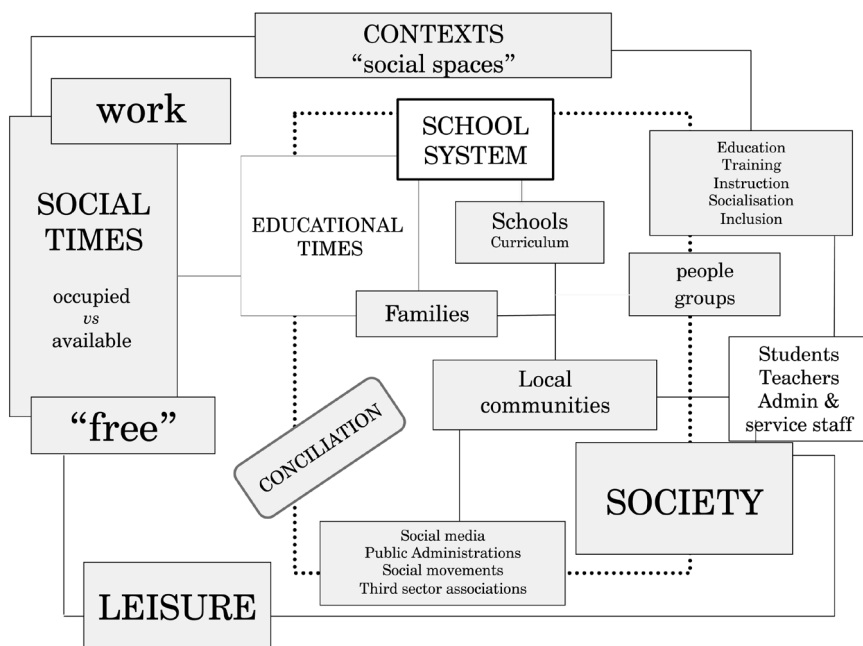
Furthermore, schooling in itself is insufficient:

school as an institution fills or occupies its own physical time (that of the school timetable), but its presence and impact on the life of individuals goes beyond the boundaries of the physical time of timetables and calendars, becoming a powerful

instrument that regulates the social time of the pupils and their family environments. (Gimeno, 2008, p. 92).

Hence the importance of differentiating between the pedagogical or didactic structures of educational time (*of* and *for* education) and those that simply order or articulate different timing units (Gairín, 1993), both in the educational system and in other social contexts, not always with the best organisational, curriculum, educational-psychology, etc. criteria (Graph 2). That this is all related does not mean it is harmonised.

GRAPH 2. Contextualisation and articulation of educational, school and social times.



Source: Own elaboration.

The decisions adopted in both micro- and macro-policy (relating to the duration and distribution of the school year, the typology

of teaching weeks and days, the division of the educational system into levels, stages, and cycles, etc.) are essential for any inter-

vention aimed at improving the quality of education, the transition from education to employment, respect for human rights, and achieving the minimum levels of dignity inherent to personal and social well-being. However obvious it might seem, we should underline the fact that educational times go far beyond schooling (Gimeno, 2008).

4. Rethinking times *in* and *from* education: a pedagogical and social task

Scientific, academic, and professional concerns with educational times have tried to take this distinction into account, although their achievements are far from matching this premise and all that rethinking education as a common good implies (UNESCO, 2015, p. 64), inspired by the “recognition and validation of knowledge and competencies acquired through multiple learning pathways ... [as] part of a lifelong learning framework.” In truth, neither existing lines of research nor the results associated with them match up with the advances in studies of time in general and social times in particular.

Even so, it should not be inferred, as Paciano Feroso already noted (1993, p. 164), “that pedagogy has not taken an interest in the time variable, unless what is meant is that it has not been investigated rigorously.” A remark that starts from García Carrasco’s reflections from years earlier (1984) after considering how the technological perspective had been introduced into educational theory and practice, transforming the pedagogical variables of time and space:

We are blind as to whether the right moment and the time invested for a pedagogical intervention are at reasonable intervals, ... most educational failure occurs because pedagogical interventions do not occur at the right time. (García Carrasco, 1984, p. LXXIII).

In fact, like then and at least in Spain, it cannot be said that time is given position in the curriculum (for example, in the teaching and learning from applied or specific didactics) that is in line with its importance as an essential milestone in evolutionary development in early childhood and all through life (Piaget, 1978; Trepát & Comes, 1998).

Nonetheless, time *in* and *of* schools educates, even if it does so silently, by accepting and imposing the temporal concepts that underpin economic interests and the organisational rationality of each era, merging into the pedagogical order of instruction in its social and cultural values (Escolano, 2000). School institutions and their teaching, despite overlooking teaching about time, have been and continue to be instruments for instilling particular notions about time, at the service of industrialisation and urbanisation from the 19th century onwards:

a notion of time based on ‘precision of encounters’, ‘sequencing of activities’, ‘forecasting’, the ‘sense of progress’, and the idea of time as ‘a value in itself’... [although] its genesis occurred much earlier. It is linked to the very birth of the school as an institution in ancient Egypt or Sumeria. (Viñao, 1994, p. 35).

Today we might be present at its disappearance as we have known it for over two hundred years.

However, owing to the debates that cross the world, in contrast with other subjects-problems that concern educational sciences and particularly pedagogy, it could be said that we are still in an early phase, with some exceptions concentrated on studying the effect of the time variable in academic performance, cognitive styles and the optimisation of teaching-learning processes, school organisation and the performance of the teaching profession, educational policies, and the public administrations' management of school calendars and times, as well as the transitions between study times and complementary, extracurricular, or out of school activities (recreational, leisure and free time, homework, etc.), or — more recently — in balancing family life with school activity.

Social media and political debates play a role in this interest, essentially on the basis of the preparation and publication of the report *Prisoners of time*, by a commission formed especially by the United States Department of Education (National Commission on Time and Learning, 1994). This line of work, which, as Pereyra (1992) has summarised and analysed in detail, featured among other antecedents the works on school time done — under the direction of Wolfgang Mitter — by the Deutsches Institut für International Pädagogische Forschung in Frankfurt, and by the National Association of Head Teachers, in the United Kingdom, led by Brian Knight, research by Francois Testu and others on the chronopsychological perspective of the organisation of time and

its effects on academic performance in France, and the compilations on different perspectives and realities of school times done by authors like Charles Fisher and David Berliner in the USA or Michel Ben-Peretz and Rainer Bromme with data from various countries (Germany, Canada, China, USA, and Israel).

Other contributions have been added to these since the 1990s that have shared their results with society through national and international academic conferences and meetings (symposia, seminars, etc.), as well as in a growing body of monographic publications in books and journals; including in: *Revue Française de Pédagogie*; *Le Monde de l'Éducation*; *Loisir et Société/Society and Leisure*; *Riforma della Scuola*; *Cuadernos de Pedagogía*; *Arbor. Ciencia, Pensamiento y Cultura*; *Pedagogía Social. Revista Interuniversitaria*; *Educació Social. Revista d'intervenció socioeducativa*; *Educar em Revista*, etc. Hundreds of collaborations have found a place in these publications, as well as in other periodicals, works in which the increasing academic and social relevance of the “invention of school time” (Escolano, 2008, p. 33) has made apparent.

In Spain, as well as the interest the topic has inspired in the boards of various publishing houses and in some of the most recognised journals, since the final decades of the 20th century, there have been a large number of works linked to research projects or contracts funded by competitive calls or through cooperation agreements with public administrations,

as well as doctoral theses and final degree and master's projects. Looking at the teaching day — and not what happens outside it — the principal contributions revolve around its format (continuous *vs* split), free time and leisure education, and the convergence between school and family life, etc. Both in the context of Spain and in nearby countries, many studies and publications have emphasised some of the concerns that have motivated educational and social agents (mothers and fathers, teachers, students, teaching unions, pedagogical reform movements, etc.), calling for new times for school and the rhythms that shape its calendars and timetables.

A list showing them with their authors and source documents, doing justice to the volume and value of their contributions, would require hundreds of pages. We will not do this, but will insist that education, as a social practice with broad civic horizons, needs time to establish itself as a human right that is also responsible for raising awareness of all that the full exercise of human rights implies, about citizenship, about well-being and quality of life with the values that invoke liberty, justice, or equality. There are many works that insist on this from very different fields: gender conciliation and equality (Cardús et al., 2003; Prieto, 2007; Caride, 2018), personal self-esteem and social interactions (Han, 2014; Safranski, 2017), or the construction of a more relational, inclusive, and cohesive society (Bauman, 2007; Mückenberger, 2007; Cuenca & Aguilar, 2009; Concheiro, 2016; Muntadas, 2016; Rosa, 2016; Wajcman, 2017).

5. Conclusion: there is no future without a present to build it

Education is a journey through time, towards the interior of each person and the world. It is so in school times and in times that precede and/or prolong its teaching-learning processes in other institutional and social settings: families, media, civic and cultural facilities, workplaces, or the technological resources that underpin online training.

As has been noted with some frequency, alluding to elements of a physical-biological, psycho-social, socio-political, or strictly pedagogical nature, time is a key part of socialisation processes, planning and reform of educational systems, and innovation and quality in education: it is a central point in the functioning of any educational establishment, in family life, and in the life of society (Husti, 1992). As a subject-problem that affects almost all forms of teaching, learning, and, in general, any formative or educational practice, “it comes with the territory in which we move” (Hargreaves, 2003, p. 109). Education, we could say using the words of Eduardo Galeano (2004), is woven with the threads of time.

Time educates and we are educated in it, and so it is necessary to rethink — pedagogically and socially — its meanings in a society that is symbolically and materially open 24 hours a day. It does this in a globalised society with the complexity intrinsic to processes of social, cultural, technological, economic, etc. change and transformation that place us before the challenge of imagining and activating an

education that does not have spatial or temporal limits. But one that also makes it necessary to expand the horizons of education as a right that serves people in a planet with almost eight billion inhabitants. This is stated in the *Sustainable Development Goals* and in their framework for action, in an attempt to guarantee quality inclusive and equitable education with lifelong learning opportunities for all. Sadly, with goals, strategic focuses, means of application, and indicators where time —unlike space and communication— remains absent.

Consequently, it is striking how in the most important reports and/or statements sponsored by UNESCO from the 1970s to the present day, time is not mentioned or is mentioned only in passing. In the report coordinated by Edgar Faure (1973), the only references to (school) time are associated with individualised teaching and its requirements for a break with the uniform rhythms of the dominant time distribution in schools. In the report led by Jacques Delors (1996, p. 14), time is only named when linked with “the concept of lifelong learning with its advantages of flexibility, diversity, and accessibility in time and space” and the recommendation to “debate and study in-depth the proposal for a time-credit for education which is succinctly formulated in the report” (*Ibid.*, p. 38); which, according to the report, should result in the right to a certain number of years of teaching.

In the report that suggests reformulating education as a global public good

(UNESCO, 2015), the only mentions of time relate to its circular, non-linear conception, in many rural societies, and it is only mentioned when the report postulates how expanding access to knowledge requires moving towards new networks in which

changes in the spaces, times and relations in which learning takes place favour a network of learning spaces where non-formal and informal spaces of learning will interact with and complement formal educational institutions. (UNESCO, 2015, p. 48).

Finally, in the Incheon Declaration and its *Action Framework for the implementation of the Sustainable Development Objective 4, Education 2030*, approved at the World Education Forum in this South-Korean city, the only reference to time is in the implementation methods for its strategies and initiatives (no. 73), stating that

there is strong evidence that teachers are open to change, and keen to learn and develop throughout their careers. At the same time, they need the time and space to take more initiative to work with colleagues and school leaders and to take advantage of opportunities for professional development. (UNESCO, 2016, p. 54).

A minor contribution when, as the title of the document states, the aim is to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.”

If this is the aim, everything indicates that educational and social times can no

longer be conceptualised and/or articulated by following the monochronic and uniform conventional principles, that have supported them until the present day. Information and communication technology make it possible to bring education to more people than conventional classrooms ever managed: especially when it offers the possibility to transcend the barriers of time, simultaneously or on a delayed basis, reaching any corner of the world. Education, which is always a project and a journey towards a better future, must anticipate and not subordinate itself. It must critically and reflexively predict its circumstances, and not just do this in a meek and adaptative way. Doing so requires a change of course in how its times are conceived and implemented, in schools and in society. Educating and being educated pedagogically and socially, with time and in the times of a network society accepts no delay.

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Shared time between grandparents and grandchildren: A time for personal development*

Tiempos compartidos entre abuelos y nietos, tiempos de desarrollo personal

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Abstract:

Increased well-being and life expectancy have helped increase and strengthen relationships between grandparents and their grandchildren, although these relationships have been affected by the quarantine resulting from the COVID-19 pandemic. This work analyses the frequency and periodicity of shared leisure time by these two family generations before the pandemic and grandchildren's perception of their personal development resulting from the time they spent with their grandparents. This research considered 1080 children aged between 6 and 12, 53.61% of whom were fe-

male ($n = 579$) and 46.38% male ($n = 501$), resident in Cantabria, Vizcaya, Gipuzkoa, Álava, Navarra, La Rioja, Burgos, and Palencia. The target variables are: year of birth and gender of respondents, frequency of shared leisure time with grandparents, and reasons for this shared leisure time. 99.16% of these children shared leisure time with their grandparents with 96.18% doing so every week. 53.71% identified the learning their grandparents conveyed to them as one of the main reasons for sharing intergenerational family leisure time. The personal development they derived from their grandparents in shared

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leisure times was an important reason for 26.75% of respondents. Significant differences were found by year of birth and gender of the grandchildren, and gender and kinship of grandparents. This article highlights the great value of grandparents and grandchildren sharing leisure time in daily family life and that children were aware of the personal development these shared times produced. Social and family intervention policies should be aimed at facilitating, stimulating, and rebuilding shared time between grandparents and grandchildren and seeking two-way personal development between the two generations.

Keywords: leisure, human development, family relationship, childhood, aging.

Resumen:

El incremento del bienestar y la esperanza de vida ha contribuido al aumento y fortalecimiento de las relaciones entre abuelos y nietos. Relaciones que se han visto puestas en cuarentena como consecuencia de la pandemia generada por el COVID-19. Este trabajo analiza la frecuencia y el período de los tiempos de ocio compartidos entre estas dos generaciones familiares antes de la pandemia y la percepción que tienen los niños del desarrollo personal que producen esos momentos disfrutados con sus abuelos. Participaron en esta investiga-

ción 1080 niños y niñas de entre 6 y 12 años, 53.61 % mujeres (N = 579) y 46.38 % hombres (N = 501) residentes en Cantabria, Vizcaya, Guipúzcoa, Álava, Navarra, La Rioja, Burgos o Palencia. Las variables contempladas son: año de nacimiento y género de los encuestados, frecuencia con que se comparte ocio con abuelos, y motivos de ese ocio compartido. Un 99.16 % de niños compartían tiempos de ocio con sus abuelos. El 96.18 % todas las semanas. El 53.71 % identificaron como una de las principales razones para vivir tiempos de ocio intergeneracional familiar los aprendizajes que sus abuelos les transmitían. Un 26.75 % percibieron como razón importante el desarrollo personal que ellos procuraban a sus abuelos en esos tiempos de ocio compartidos. Se observaron diferencias significativas en función del año de nacimiento y género de los nietos, y del género y parentesco de los abuelos. Se resalta el gran peso de los tiempos de ocio compartidos entre abuelos y nietos en la cotidianidad familiar y cómo los niños eran conscientes del desarrollo personal que procuraban esos tiempos compartidos. Las políticas de intervención social y familiar deben ir orientadas a facilitar, estimular y reconstruir tiempos compartidos entre abuelos y nietos que procuren desarrollo personal bidireccional entre ambas generaciones.

Descriptores: ocio, desarrollo humano, relación de familia, infancia, envejecimiento.

1. Introduction

The study of time has inspired much interest from various academic disciplines such as philosophy, physics, history, anthropology, and psychology. This

phenomenon has become more important in modern societies since the start of the 20th century, and there has been a focus on acquiring an in-depth understanding of how people spend their time so that

personal and social life can be categorised and organised (Codina, Pestana, Caride, & Caballo, 2013). These uses of time are shaped by the major events that affect society. One clear example can be found following the declaration of the COVID-19 pandemic, when social distancing strategies recommended by public health authorities limited non-essential services, restricting our options for choosing how to use our time for the good of the health of all of humankind.

The concept and perception of time are learnt in infancy, as is the perception of the passage of time, a perception that is internalised and depends on each person. A series of personal and situational variables such as prior experience, state of mind, motivation, and an individual's life stage mean that an individual's personal clock moves at a faster or slower speed (Isaacowitz & Fung, 2016; Vázquez Echeverría, 2011; Ornstein, 1975; Zimbardo, 2009).

Considering the perception of time, in successive life stages, it has been argued that we are born with the perception that time is static and it is in early childhood that the child, through its movements and the succession of routine activities, as well as completing tasks, becomes aware of time and learns to determine the space-time relationship (Vázquez Seguí, 2014). In the second half of life, being occupied with tasks, having a positive attitude and motivation, and successfully completing activities lead to a perceived acceleration of the passage of time (Gambara, Botella, & Gempp, 2002;

John & Lang, 2015). In older people, the difference in the perception of time lies in the novelty of the events experienced (Fraisie, 1998). In early childhood, we are constantly doing new activities (acquiring new information, expanding social networks, accepting challenges, and experiencing new things); in old age, there is little novelty in life experiences. Academic literature has shown that subjective time is a very interesting construct given its important implications for people's well-being, and how older people perceive time can also be a potential indicator of their adaptation, well-being and health and, ultimately, successful aging (Gabrián, Dutt, & Wahl, 2017; Gil & Droit-Volet, 2009; Izal, Bellot, & Montorio, 2018; Noulhiane, Mella, Samson, Ragot, & Pouthas, 2007; Wiesmann, Ballas, & Han-nich, 2018).

At a time when scientific and technological advances have enabled increased life expectancies, the traditional pyramid-shaped population structure has changed into a vertical one. Owing to demographic growth in the groups of people aged over 50 and a smaller younger generation (Meil, 2006), encouraging older people's participation in meaningful activities that could provide them with a perception of greater fluidity in the passage of time with resultant positive effects on their emotional well-being is seen as necessary. As Izal et al. argue (2018), as people age, their motivations move towards emotional aspects that can provide them with well-being in this stage in life, such as relationships with family members and friends that form the cor-

nerstones of the use and enjoyment of their time. Relationships that have been abruptly interrupted by the health crisis that has hit all of humankind during the first half of 2020.

Taking into account these premises and that this move towards a more vertical demographic has also affected the family structure with a greater number of generations per family and an increase in grandparents' lifespans overlapping with those of their grandchildren (Ramos, 2019), as well as the sociocultural and family changes that have occurred in recent decades and those that have occurred owing to the unexpected impact and spread of the coronavirus, it is vital to recognise the value of research into relationships between these two generations, the benefits these special interactions provided for promoting active and successful aging, as well as the time and the activities that grandparents and grandchildren shared before the health crisis of 2020. Knowing the immediate past will, in the near future, help with rebuilding intergenerational family networks that preserve older people's health and reinforce their development and that of their grandchildren.

According to academic literature, grandparents feel very close links with their grandchildren (Triadó, 2000; Triadó, Martínez, & Villar, 2000) and grandchildren regard their grandparents as major figures in their lives (Attar-Schwartz, Tan, & Buchanan, 2009); furthermore, when shared time is used for leisure, it has valuable, educational potential (Caride, 2012; Sanz, Sáenz de Jubera, & Cano, 2018).

The coronavirus pandemic (COVID-19), the greatest recent challenge facing humankind, has dealt a direct blow to the family network and has had a serious impact on the time shared by grandparents and grandchildren. The home confinement policies implemented by health authorities all over the world to control the spread of the illness have meant that these two groups, classed as especially vulnerable, have had to remain in their homes without the mutual contact they previously enjoyed, without their daily routine and isolated from all of their surroundings, something which can have major emotional consequences with a range of somatic and psychological effects (Brooks et al., 2020; Wang, Zhang, Zhao, Zhang, & Jiang, 2020).

This negative impact on the well-being of children and their grandparents, carers, and usual companions is, in most cases, compounded by a lack of interaction between the two groups. The children and their grandparents often find this situation worrying and upsetting, as they miss their shared time and hope for its return (Dalton, Rapa, & Stein, 2020).

This is especially so when the intergenerational exchange between grandparents and grandchildren provides significant benefits for both generations (Coall & Hertwig, 2010; Kim, Kang, & Johnson-Motoyama, 2017). On the one hand, it provides positive factors for the children's continuous process of comprehensive development thanks to the transmission of social and emotional values such as self-esteem, self-confidence, and tolerance of adversity. In addition, it avoids isolation

and prevents unhealthy habits (Álvarez, Cala, & Riaño, 2019; Martínez, 2017); furthermore, grandchildren help their grandparents feel useful, young, and happy (Osuna, 2006) and so they perceive greater levels of social support (Muñoz & Zapater, 2006). In turn, grandparents offer emotional, practical, and financial support during their grandchildren's childhood (Martínez, 2017) and have also been identified as an element of stability in family crises (Hagestad, 1985). The relationship with their grandchildren provides them with vitality, hope, and happiness, it optimises resources for handling mental illness, increases the feeling of personal esteem, and encourages motivation (Aranda, 2013; MacCallum et al., 2006; Martínez de Miguel, Escarbajal, & Moreno, 2012). Recent studies (Larrain, Zegers, & Orellana, 2019; Triadó, 2018; Villar, 2013) highlight the generative potential of relationships between grandparents and grandchildren, encouraging active and successful aging in older people that helps them feel better in themselves, helps with their personal development, and helps them adapt better to changes in life, and increases their satisfaction with life.

Ultimately, time shared by grandparents and grandchildren has an impact on the quality of these relationships, in particular in dimensions such as intimacy, closeness, affection, optimism, enjoyment, and happiness, resulting in a unique family legacy (Hebblethwaite & Norris, 2011).

These intergenerational relationships can be strengthened when grandparents and grandchildren share family leisure.

Renowned authors have underlined that the frequency of contact and the possibility of providing company and/or caring activities (sharing meals, conversing, listening to music, speaking on the telephone, telling stories, playing, going for walks, visiting family members and friends, discussing things, making important decisions, worship) are variables that affect grandchildren's satisfaction with their relationship with their grandparents (González & de la Fuente, 2007, 2008; Pinazo & Montoro, 2004). When these grandchildren reach adulthood, they then provide important practical and emotional support for the grandparents (Kemp, 2004) and their grandparents perceive that they receive better expressive and practical support than that which they can give (Pinazo & Montoro, 2004). In other words, this intergenerational family tie is strengthened and has a positive impact on their values, goals, and quality of life. Over time, a generational continuity develops that entails an inversion of care, so that the grandchildren provide care for their grandparents. Badenes and López (2011) and Martínez (2017) explain that this bidirectionality results in a relationship of intergenerational family solidarity, based on disinterested love and the transfer of values, which develops and changes over time for both of the agents involved (grandparent-grandchild).

Part of the academic literature emphasises that, owing to social changes (the growing equality of women in the workplace, new family models, etc.), grandparents had become as a key component in

families' systems of care for their grandchildren before the COVID-19 pandemic (Morgado & Román, 2011) and their role often included care, protection, and supervision of grandchildren, featuring obligations ranging from full-time care to regular or occasional involvement (Buchanan, 2008). Earlier studies even detected stress in grandparents resulting from performing this role (Luna, Ramos, & Rivera, 2016). Nonetheless, it is important to note that time shared by grandparents and grandchildren can go beyond these caring and family obligations and build leisure experiences that are of value for both of the generations involved and are open to the pleasure, satisfaction, and personal development that these experiences provide.

This principle for proceeding defines the aim of this study: to identify the times and frequency of shared leisure with grandparents and grandchildren before the COVID-19 pandemic and discover how boys and girls perceive the personal devel-

opment these moments they spent with their grandmothers and grandfathers produce for them.

2. Methodology

2.1. Population and sample

The research population for this project comprised children aged between 6 and 12 living in the northern region of Spain. This northern region comprises eight of Spain's provinces: Cantabria, Vizcaya, Gipuzkoa, Álava, La Rioja, Navarra, Burgos, and Palencia.

Taking into account the fact that in Spain it is obligatory for all children aged between 6 and 12 to be educated at an educational institution, the research population was defined on the basis of the statistical data published by the offices and departments of education of each autonomous region. The data collected show a population size of 250,357 primary school pupils in the northern region of Spain.

GRAPH 1. Northern Region of Spain: Cantabria, Basque Country, La Rioja, Navarra, Burgos, and Palencia.



Source: Own elaboration.

Establishing an absolute error of 3%, a confidence interval of 95%, and assuming that $p = q = 0.5$, the sample size was es-

timated to be 1075 pupils. With an experimental attrition rate of 1.11%, the final sample size was 1063 pupils.

TABLE 1. Population and sample. Children in primary education (aged 6-12) in the northern region of Spain.

	Provinces	Population	Sample
NORTHERN REGION OF SPAIN	Cantabria	33,608	146
	Basque Country	129,432	553
	La Rioja	19,366	83
	Navarra	40,468	175
	Burgos	19,774	85
	Palencia	7709	34
	TOTAL	250,357	1063

Source: Offices and Departments of Education of Cantabria, Castilla León, La Rioja, País Vasco and Navarra, n.d.

2.2. Variables

This study considers five variables: year of birth and gender of respondents, living grandparents of respondents, how often respondents spend time with their grandparents, and reasons for this shared leisure.

- The year of birth, an ordinal interval variable with 6 categories, recorded between 2007 and 2012 when each pupil was born.
- Gender, a dichotomous variable, identified whether the participant was a boy or a girl.
- Living grandparents, a categorical variable with 4 categories, established whether the respondent had a living maternal grandmother, ma-

ternal grandfather, paternal grandmother, or paternal grandfather.

- The frequency of shared leisure with grandfathers and grandmothers, an ordinal variable, recorded in 8 categories relating to how often boys and girls shared leisure activities with their grandparent(s). The categories were: (0) I never spend leisure time with my grandparent(s); (1) only in the holidays, (2) only 1 or 2 days a month; (3) 1 day of the weekend (4) both days of the weekend; (5) 1 or 2 days a week; (6) 3 or 4 days a week; (7) 5 days a week.
- The reasons why grandchildren share leisure with their grandparent(s), a categorical variable, com-



prised 8 categories: because I like it; they look after me; I don't have anyone else to share this activity with; my grandparent(s) don't have anyone else to share this activity with; my grandparent(s) know a lot about this activity and teach me; I know how to do this activity and I show my grandparent(s); to entertain my grandparent(s); to spend more time with my grandparent(s). Two of these 8 categories are especially relevant and relate to the learning grandchildren obtain or derive from the shared leisure. These provide us with information about the children's perception of the personal development provided by enjoying leisure activities with their grandparents (my grandparent(s) know a lot about this activity and teach me; I know how to do this activity and I show my grandparent(s)).

2.3. Procedure

The questionnaire was administered at random among the pupils of the different schools in each of the 8 provinces in Spain's northern region. Before administering the questionnaire, we requested permission from the Director-General of Education of each autonomous region. Once we had obtained permission, we contacted the heads of various schools in each autonomous region to inform them of the objectives of the study, ask if it was possible for some of their pupils to participate by completing the questionnaire, and request their cooperation by sharing and collecting informed consent forms from the parents of the pupils. Five appropriately trained

researchers visited each school in person to guide the pupils directly in completing the questionnaire, thus reducing the experimental attrition. Within each of the selected groups (schools), we attempted to maintain proportionality with regards to aspects such as sex and educational level and we only surveyed those pupils who had signed consent from their father, mother, or legal guardian.

2.4. Data analysis

An initial univariate analysis established the proportion of primary school pupils who had grandparents, how many of the children spent leisure time with their grandparents, how often they did so, and for what reasons. To do this, we used frequencies, means, and standard deviations.

A second bivariate analysis was used to analyse the differences between girls and boys and between pupils of different ages in primary education. For this level of analysis, we used Student's *t* test for independent samples, which set out to identify significant differences between boys and girls with regards to frequency of shared intergenerational family leisure. We used Pearson's correlation coefficient to check for a significant relationship between year of birth and frequency of shared leisure with grandparent(s). Contingency tables, using the phi coefficient, permitted a more in-depth inferential analysis between boys and girls with regards to the reasons that led them to share leisure with their grandparent(s). Finally, the simple linear regression model enabled an analysis of whether each reason was mentioned more often as

the participants' years of birth increased or decreased. The significance level used at all times was $p < 0.05$.

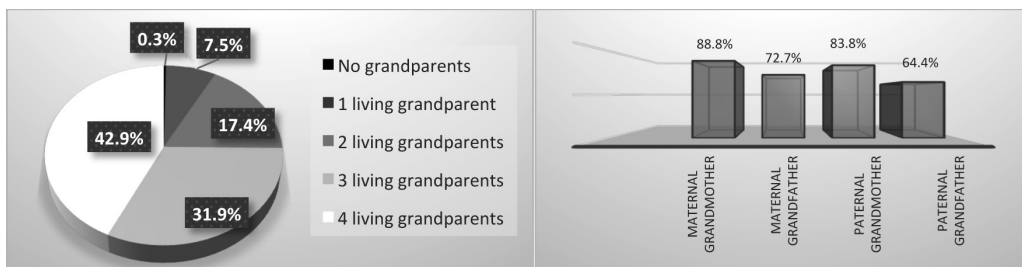
3. Results

Of the children in primary education in the northern region of Spain, 42.9% had 2 living grandmothers and 2 living grandfathers. 31.9% had 3 living grandparents. Only 0.3% had no living grandparents. Female grandparents were more common

than male ones; 88.8% of respondents had a maternal grandmother and 83.8% had a paternal grandmother. These percentages drop to 72.7% and 64.4% in the case of maternal and paternal grandfathers respectively (Graph 2).

Of the pupils aged between 6 and 12, 99.16% spent leisure time with their grandparents. Only 0.54% did not practice any leisure activities with their grandparents.

GRAPH 2. Living grandmothers and grandfathers.

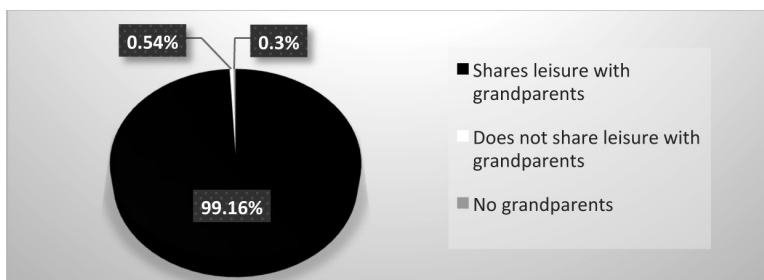


Source: Own elaboration.

93.4% of them practiced some leisure activity with their grandparents every week. 40.1% did so more than 2 days a

week and 53.2% did so 2 days a week, 26.1% during the week and 27.1% at weekends.

GRAPH 3. Primary education pupils who spend leisure time with their grandparents.

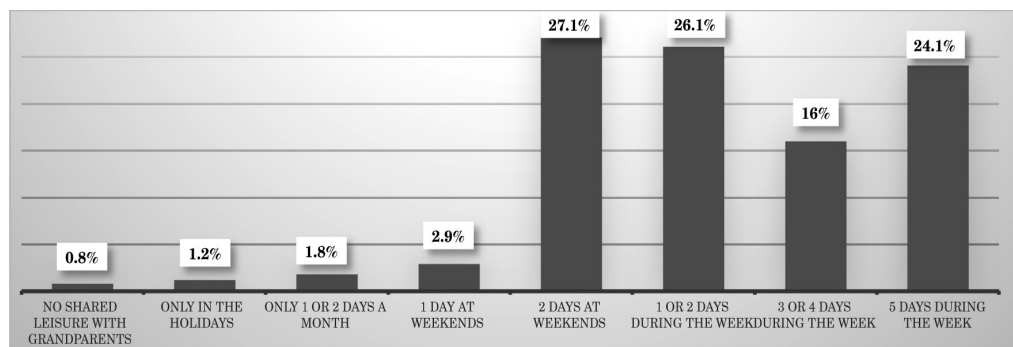


Source: Own elaboration.

It is very notable that the most common reason primary school pupils gave for practising intergenerational leisure was autotelic with 93.9% stating that they did this

leisure simply because they liked it. The second most frequently reported reason related to emotional ties, as 72.8% did it to spend more time with their elder relatives.

GRAPH 4. How often primary education pupils spend leisure time with their grandparents.

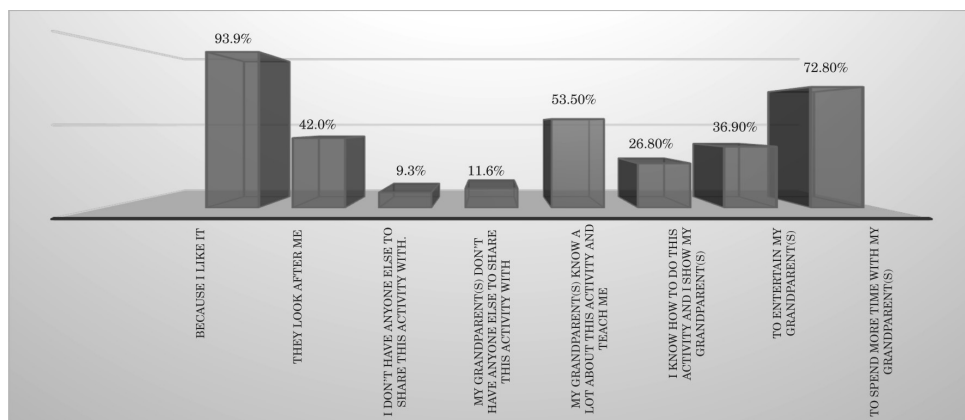


Source: Own elaboration.

Nonetheless, a not insignificant percentage, 53.5%, said that another reason for sharing leisure with their grandparents was the learning they received from them. In the opposite

generative direction, 26.7% regarded the personal development they provided for their grandparents in these shared leisure periods as important (Graph 5).

GRAPH 5. Reasons for sharing leisure activities with grandparents.



Source: Own elaboration.

Student's *t* test for independent samples showed no significant differences in how often grandparents and grandchildren shared leisure activities according to the grandchildren's gender ($w = 5.19 \pm 1.368$; $m = 5.15 \pm 1.498$; $p = .687$). Boys and girls both experienced inter-generational family leisure with a mean frequency of one or two times a week.

Pearson's correlation coefficient also showed no relationship between pupils' year of birth and how often they did leisure activities with their grandparent(s) ($r = .055$; $p = .070$).

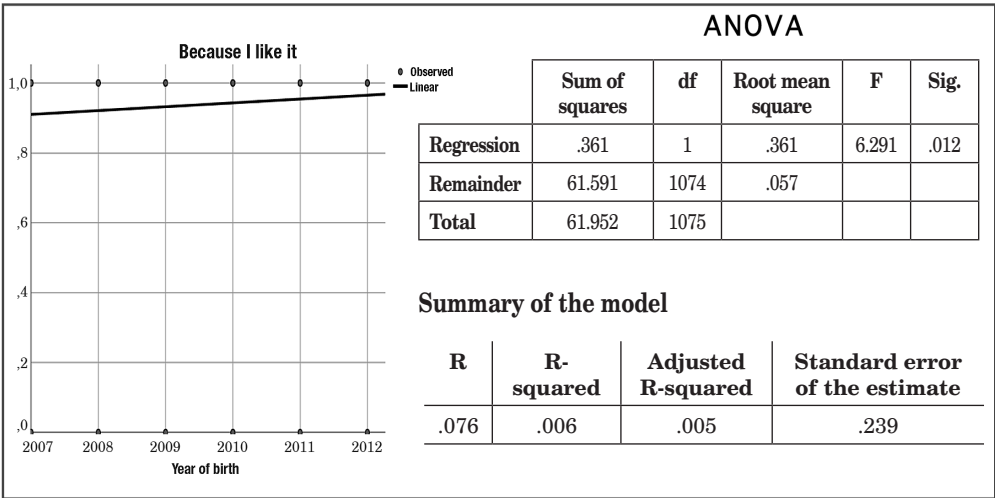
We used the phi coefficient for square contingency tables to identify significant differences between boys and girls in the reasons why they share leisure with their grandparent(s). This identified significant differences for two of the reasons: "my

grandparent(s) don't have anyone else to share this activity with" ($\phi = .082$; $p = .027$) and "because my grandparent(s) know a lot about this activity and teach me" ($\phi = .104$; $p = .003$). Boys were more likely to do an activity with their grandparent(s) so that their grandparent(s) would have someone to do it with (14.4% of boys compared with 9.2% of girls). In contrast, girls were more likely to identify the personal development their grandparent(s) provided in this shared time more (58.1% of girls compared with 48.1% of boys).

The other reasons were provided equally by boys and girls as the approximate significance levels were greater than 0.05.

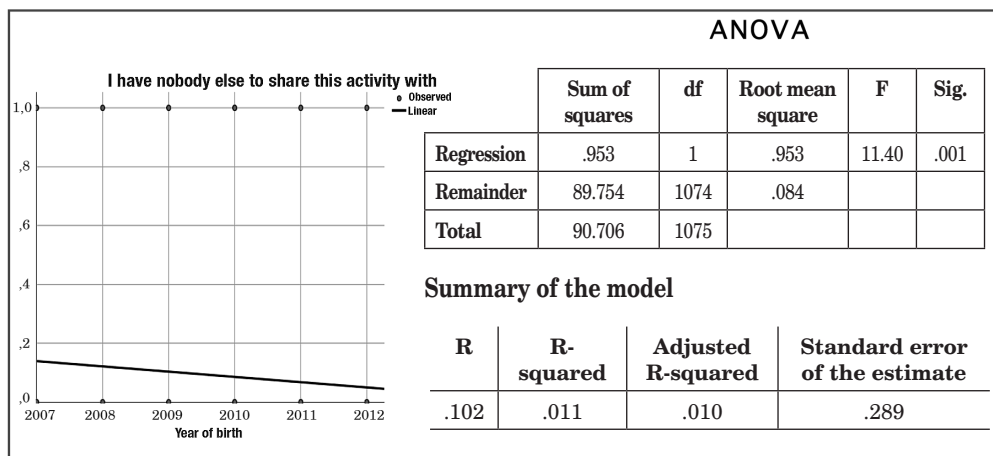
The simple linear regression model showed that the youngest respondents did the most with their grandparent(s) because they liked it ($R^2 = .006$; $p = .012$) (Graph 6).

GRAPH 6. Linear regression: year of birth and the reason "because I like it".



Source: Own elaboration.

GRAPH 7. Linear regression: year of birth and reason “I have nobody else to share this activity with”.

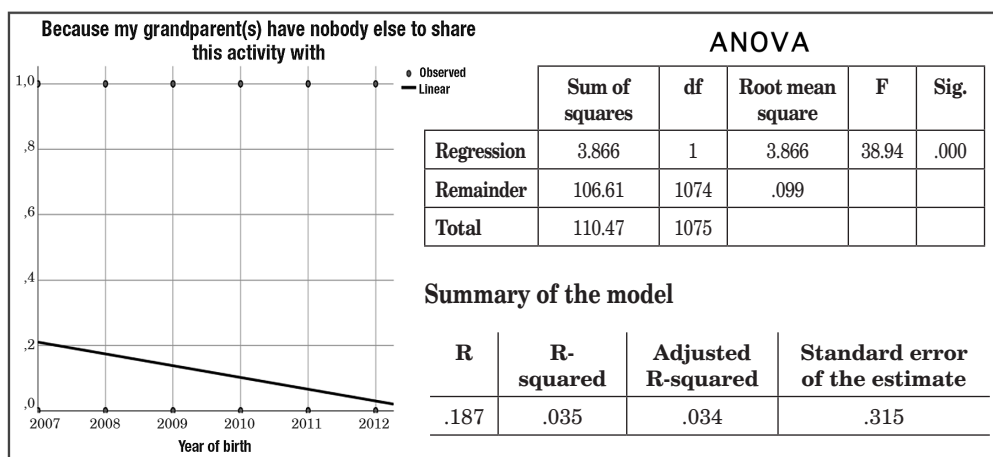


Source: Own elaboration.

In contrast, older respondents said that they shared leisure with their grandparent(s) for 5 reasons: because they ($R^2 = .011$; $p = .001$) or their grandparent(s) ($R^2 = .035$; $p = .000$) did not have anyone else to share this activity with (Graphs 7 and 8), be-

cause they knew how to do the activity and taught their grandparent(s) ($R^2 = .031$; $p = .000$) (Graph 9), to entertain their grandparent(s) ($R^2 = .012$; $p = .000$) (Graph 10), to spend more time with their grandparents ($R^2 = .012$; $p = .000$) (Graph 11).

GRAPH 8. Linear regression: year of birth and reason “my grandparent(s) have nobody else to share this activity with”.

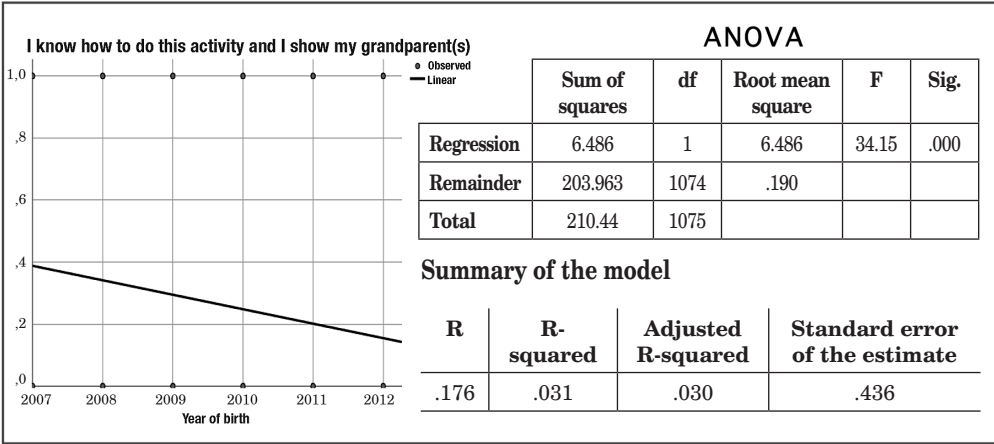


Source: Own elaboration.

Finally, the simple linear regression model established that there were no significant differences associated with year of birth when the following were identified as important reasons for

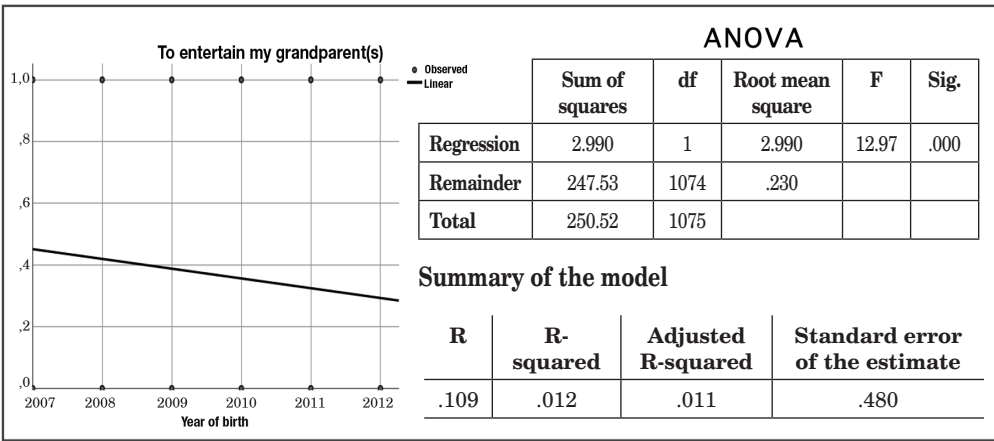
sharing leisure with grandparent(s): the learning their grandparents provided for them ($R^2 = .000$; $p = .884$) or because their grandparent(s) look after them ($R^2 = .000$; $p = .657$).

GRAPH 9. Linear regression: year of birth and reason “I know how to do this activity and I show my grandparent(s)”.



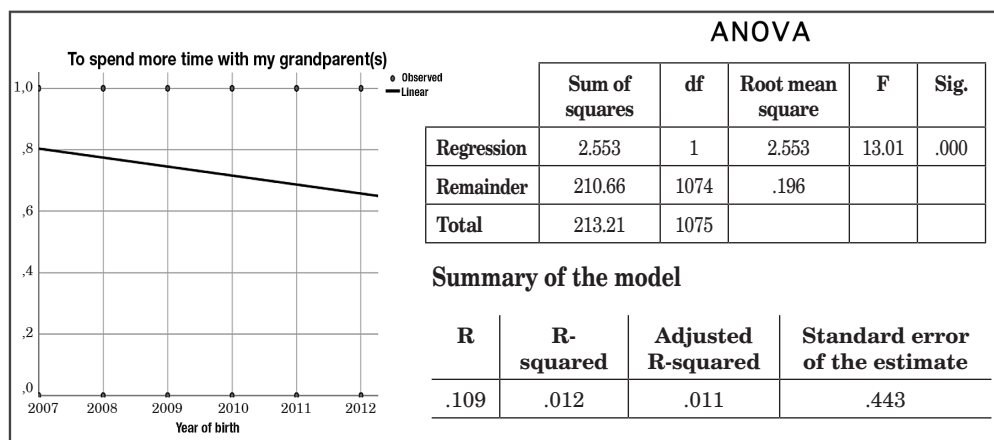
Source: Own elaboration.

GRAPH 10. Linear regression: year of birth and reason “to entertain my grandparent(s)”.



Source: Own elaboration.

GRAPH 11. Linear regression: year of birth and reason
“to spend more time with my grandparent(s)”.



Source: Own elaboration.

4. Discussion

This study showed that most of the boys and girls in the northern region of Spain who were at primary school before the COVID-19 pandemic shared leisure time with their grandparents and that they did so every week, something that is in line with the data from the latest European SHARE survey (*Survey of Health, Ageing and Retirement in Europe*), which showed that Spain leads Europe with regards to the intensity of the time shared between grandparents and grandchildren, second only to Italy (Börsch-Supan, 2019; Mari-Klose & Escapa, 2015).

This work also underlines that children regard time they share with their grandparents as beneficial for their personal development, this being more apparent in girls than in boys. They experience intergenerational activities as genuine leisure, given that they stated that they obtain satisfaction and enjoyment from

them, which are key elements of valuable leisure (Cuenca, 2014). Furthermore, grandchildren perceive a correspondence in the contributions these experiences make to their own needs and those of their grandparents, affirming the existence of areas that benefit people from both age groups through the enjoyment of shared leisure periods (Newman & Smith, 1997). In particular, they consider that the need to teach and be taught is covered for both age groups; grandchildren show their grandparents how to do leisure practices that they know how to do and their grandparents guide them in the development of leisure activities about which they have more knowledge and experience.

This mutual positive influence on the personal development of children and older people helps build more solid emotional and vital bonds between the two generations and to strengthening involvement and closeness in the family setting. Sim-

ilarly, it credits grandparents as agents of socialisation in the family, identifying them as vital transmitters of values, moral codes, and social rules (Hagestad, 1985; Kopera & Wiscott, 2000; Osuna, 2006; Taubman-Ben-Ari, Ben Shlomo, & Findler, 2018).

It is interesting to note another finding from this research, namely that the younger the children being studied, the more they practice leisure activities with their grandparents for personal enjoyment (simply because they like to do it) while as the children get older, reasons become more important that relate to emotional ties (such as spending more time with grandparents or entertaining them), social aspects (such as not having other people with whom to carry out these activities) and, finally, reasons associated with aspects of personal development (such as a good knowledge of how to do the shared activity that makes it possible to facilitate the grandparent's learning). These results are thought to be consequences of the developmental stage of children aged from 6 to 12, which entails different needs and interests depending on their age.

What is truly important is to enjoy autotelic experiences in intergenerational leisure settings from the start of the primary school stage, as there is extensive evidence that its positive effects remain all through people's lives (Csikszentmihalyi, 1998; Kleiber, 2012), given that people's future heritage is established in this period and because learning through leisure activities, and therefore through intergenerational leisure, increases competences

and skills in the cognitive, social, emotional, and physical areas (Berrios, Lazcano, & Madariaga, 2017).

The results obtained confirm the great importance of shared leisure time between grandparents and grandchildren in everyday family life, and that grandchildren are aware of the personal development this shared time provides. Social and family intervention policies should be designed to facilitate shared time by grandparents and grandchildren to expedite bidirectional personal development between the two generations.

A suitable organisation of intergenerational leisure periods is necessary, implementing proposals aimed at joint participation by grandchildren and grandparents. This organisation must be stimulated by the families themselves in cooperation with public administrations, associations, and institutions and companies dedicated to the field of education and leisure. In turn, these intergenerational leisure proposals must be supported in a global context that must be approached from four interrelated directions: research, policy, practice, and theory (Newman & Sánchez, 2007).

This study reflects a situation relating to the amount of leisure time shared by grandparents and grandchildren before the COVID-19 pandemic. The prevention measures adopted during the health crisis, along with the fact that grandparents are one of the most vulnerable groups, have resulted in drastic restrictions on possibilities for intergenerational family leisure. Health experts predict a new reality in

the immediate future which will make it necessary to incorporate new habits and hygiene measures into everyday life that might affect how we relate to each other. This new reality underlines the need to extend this study to assess and understand the implications of confinement at home on shared leisure by grandparents and grandchildren. Knowledge of the recent past, along with an understanding of what people have lived through during the health crisis of 2020, will act as a guide for shaping family and social policies aimed at adapting and building new strategies to enable use of time that strengthens a shared leisure which contributes to the personal development of grandparents and grandchildren.

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From the perception to the uses of time: Time perspective and procrastination among adults in Spain*

De la percepción a los usos del tiempo: perspectiva temporal y procrastinación de adultos en España

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Abstract:

The behavioural sciences have investigated the relationship between time domain or control and human development from a variety of perspectives, in recent decades, outlining two attitudinal manifestations that are deeply involved in such development: time orientations and procrastination. There is abundant literature regarding these concepts, but few works provide data about the relationship between these attitudes and aspects of everyday life, data that might identify options to regulate such attitudes. This paper analyses time perspective and procrastination with regards to age, temporal characteristics of work, and living arrangements. 720 adults (390 men and 330 wom-

en) aged between 18 and 64 years ($M = 40.44$; $SD = 9.80$) participated. The instruments used were an ad hoc questionnaire on sociodemographic data, and two scales validated for the Spanish population: the Zimbardo Time Perspective Inventory and a procrastination instrument that combines the General Procrastination Scale, the Decisional Procrastination Questionnaire, and the Adult Inventory of Procrastination. The results show an unbalanced general perspective in the sample as a whole, with significant relationships by age, living arrangements (e.g., more negative past — $d = .33$ — and hedonistic present — $d = .30$ — among respondents who live with their parents) and temporal characteristics of work (e.g., more fatalistic

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present in respondents with rigid schedules — $d = .53$). Procrastination is more present in young people aged between 18 and 29 (in the dilatory behaviour — $d = .63$ — and lack of punctuality — $d = .69$ — factors). Also, several of these factors are associated with living alone or with extending the working day. These findings highlight determining factors relating to attitudes to time, results that highlight specific variables from daily life which can be the subject of interventions to facilitate the development of people with the potential to dominate or control time.

Keywords: procrastination, time perspective, living arrangements, age, work.

Resumen:

Las ciencias del comportamiento han investigado desde diferentes perspectivas la relación entre el dominio o control del tiempo y el desarrollo humano, perfilándose, en las últimas décadas, dos manifestaciones actitudinales altamente implicadas en dicho desarrollo: las orientaciones temporales y la procrastinación. Respecto a estos conceptos abunda la literatura; sin embargo, pocos trabajos aportan datos relativos a la relación entre ambas actitudes y aspectos de la vida cotidiana —datos que pueden poner sobre aviso opciones para regular dichas actitudes—. En esta investigación se analizan la perspectiva temporal y la procrastinación en relación con la edad, las características temporales del trabajo y las condiciones de cohabitación (con quién se vive). Parti-

ciparon 720 adultos (390 hombres y 330 mujeres) con edades comprendidas entre 18 y 64 años ($M = 40.44$; $DT = 9.80$). Los instrumentos utilizados fueron un cuestionario *ad hoc* de datos sociodemográficos y dos escalas validadas para población española: el Inventario de Perspectiva Temporal de Zimbardo y el instrumento de procrastinación que integra la *General Procrastination Scale*, el *Decisional Procrastination Questionnaire* y el *Adult Inventory of Procrastination*. Los resultados muestran una perspectiva general no equilibrada en el conjunto de la muestra, observándose relaciones significativas según la edad, la situación de cohabitación (p. e., más pasado negativo — $d = .33$ — y presente hedonista — $d = .30$ — en quienes viven con sus padres) y las características temporales del trabajo (p. e., más presente fatalista en quienes tienen unos horarios rígidos — $d = .53$). La procrastinación está significativamente más presente en los jóvenes entre 18-29 años (en los factores de conductas dilatorias — $d = .63$ — y falta de puntualidad — $d = .69$); asimismo, varios de sus factores están asociados a vivir solo o al hecho de alargar la jornada laboral. Estos hallazgos apuntan unos condicionantes relacionados con manifestaciones actitudinales hacia el tiempo, resultados que apuntan variables específicas de la cotidianidad sobre las cuales se puede intervenir con el objetivo de facilitar el desarrollo de personas con potencial para dominar o controlar el tiempo.

Descriptores: procrastinación, perspectiva temporal, cohabitación, edad, trabajo.

1. Introduction

From a human development perspective, we understand that dominating or

controlling time means subjecting it to one's own will. The behavioural sciences study this undertaking through processes

ranging from time management strategies to self-regulation of time, and including attitudes to time and the problem of procrastination.

Research into these topics has made significant contributions to our knowledge of them but few works provide specific information on the relationship between attitudes towards time and situational variables (main occupation, schedules, or living arrangements). Consequently, evaluations of time domains and intervention plans are based on standards that do not consider the particulars of the reality being studied, even though they do affect the time domain people display.

In view of these ways of studying time, the present work focusses on the temporal orientations and procrastinatory tendencies of working people in relation to age, the temporal characteristics of their work (hours worked and labour flexibility criteria), and types of living arrangements, which should be considered in studies and interventions regarding this domain or control, all with the aim of showing how these variables affect time domain or control.

1.1. Time perspective

Temporal orientations are attitudes towards time that form an often unconscious way of dominating or controlling time, shape people's behaviour (Zimbardo & Boyd, 1999), and play a decisive role in their well-being (Boniwell, Osin, Linley, & Ivanchenko, 2010; Drake, Duncan, Sutherland, Abernethy, & Henry, 2008; Simons, Peeters, Janssens, Lataster, & Jacobs, 2018). These attitudes have been studied

with the names time perspective and temporal orientation.

Time perspective basically refers to the cognitive distance at which lived experiences and goals are placed (Nuttin, 1985) and *temporal orientation* to the subject's particular tendency to focus on the past, present, or future (Lewin, 1948). However, in recent years, many authors (including the authors of the present work) have tended to use both expressions interchangeably to refer to the second concept, following one of the most influential theoretical models, that of Zimbardo and Boyd (1999). According to this model, temporal orientation is a process situated at the origin of individual and social behaviour, and it codifies, organises, and recalls lived experiences, building new targets, expectations, and future scenarios.

According to Zimbardo's theory (Zimbardo & Boyd, 2008/2009; Zimbardo, Keough, & Boyd, 1997), a person's time perspective comprises the following five dimensions and their corresponding attitudes: 1) *past negative*, which reflects a pessimistic, negative, or aversive attitude towards the past; 2) *past positive*, which is expressed as nostalgia and a positive construction of the past; 3) *present hedonistic*, which leads to people to live from one day to the next, seeking immediate gratification and pleasure; 4) *present fatalistic*, which is associated with a certain level of despair regarding the future and an inability to expect a pleasant future based on present behaviour; and 5) *future*, relating to the achievement of future objectives, delayed gratification, and avoidance of time wasting (Zimbardo & Boyd, 2009).

These temporal orientations are present in different proportions in each person's time perspective, resulting in temporal attitudes that might inhibit or favour the person's development. Specifically, one dimension being predominant over the others results in particular attitudes and dispositional styles.

So, if the past negative or positive dimension is dominant, an individual will tend to act in response to recurring situations that reflect past experiences and will display signs of anxiety and negative affect (D'Alessio, Guarino, De Pascalis, & Zimbardo, 2003, Drake et al., 2008); if present fatalistic is dominant, an individual will be inclined to believe that the future is predetermined and that they have to live with resignation (Zimbardo & Boyd, 2009); if present hedonistic is dominant, there is a tendency to think that what matters most is to live for the moment without considering future consequences (Zimbardo & Boyd, 2009) but if the present is very dominant, this will result in an increase in procrastination, impulsiveness, and aggression (Ferrari & Díaz-Morales, 2007); if fatalistic and hedonistic presents are predominant, there is a tendency to feel good and secure in different settings; and, finally, when future is predominant, individuals will try to guide their behaviour in accordance with the proposed objectives and their benefits, as well as planning their time and activities (Ferrari & Díaz-Morales, 2007; Shell & Husman, 2001, Zimbardo & Boyd, 2009).

Beyond these dispositional styles — because of the specific dominance of one

dimension — it has been observed that an optimal and balanced time perspective is found when there are lower levels of the dysfunctional orientations (past negative and present fatalistic), higher levels of the functional ones (past positive and future), and moderate levels of present hedonistic. In other words, people tend to experience greater well-being and better adaptive capacity (Boniwell & Zimbardo, 2004; Sircova et al., 2014; Boniwell et al., 2010; Drake et al., 2008; Webster, 2011; Wiberg, Sircova, Wiberg, & Carelli, 2012). The importance of maintaining this balance has led to this situation being called *time competence* (Zaleski, 1994): a competence that means that the individual confronts adverse life situations and successful life situations with a lower psychological cost and greater success. Therefore, in the dynamic of the five time perspectives, a balanced combination seems to be desirable, or in its absence, a dynamic in which the future dimension stands out.

Although there has been considerable research into temporal orientations, researchers recognise that the results are often inconsistent and contradictory owing to the diversity of variables and study approaches (Kooij, Kanfer, Betts, & Rudolph, 2018). Accordingly, they argue that there is a need for more specific research and more reflection on the socio-demographic variables and sociocultural values that affect people's time perspective (Codina, Pestana, & Ponce de León, 2018; Levasseur, Shipp, Fried, Rousseau, & Zimbardo, 2020; Soyulu & Ozekes, 2019;

Stolarski, Wiberg, & Osin, 2015). Regarding these challenges, some scholars have specifically identified the need to study the phenomenon in greater depth in relation to the variables we consider in this paper: age (Codina & Pestana, 2016; Laureiro-Martínez, Trujillo, & Unda, 2017; Matthews & Stolarski, 2015), temporal characteristics of work (Bluedorn, 2002), and living arrangements (which, as far as we know, has not been the subject of any major studies).

1.2. Procrastination

Procrastination is a problem relating to time domain or control, which consists of the habit of delaying the start, completion, or both of a task or activity one intends to perform (Lay, 1986). In more detail, procrastination manifests itself through four types of behaviour (Díaz-Morales, Ferrari, Díaz, & Argumedo, 2006): 1) dilatory behaviour, which involves deferring the execution of the intended activity; 2) indecision, which takes the form of putting off decisions within a specific time frame; 3) lack of punctuality, which manifests itself in an inability to satisfactorily comply with temporal commitments; and 4) lack of planning, which is expressed in a lack of self-discipline focussed on a specific task. The habit of procrastination in any of the dimensions identified, manifests itself in school, university, work, health, daily routines, the family, social life, and administrative processes (Klingsieck, 2013) and also in leisure (Pestana, Codina, & Valenzuela, 2020), among other settings.

While most people are aware of and practise procrastination in specific sit-

uations, when it becomes a habit or becomes generalised, it causes serious personal, interpersonal, and social problems (Goroshit, 2018). Owing to its impact on health and development, and given that it is a habit shared by over 20% of the adult population (Harriott & Ferrari, 1996; Díaz-Morales & Ferrari, 2015), procrastination has inspired numerous studies into its nature. Consequently, it has been examined from perspectives ranging from the impact of personality variables (Kim, Fernández, & Terrier, 2017; Steel, 2007), to psychosocial variables such as teaching styles, and situational temporal variables such as pressure, scarcity, and patterns (Codina, Castillo, Pestana, & Balaguer, 2020; Codina, Valenzuela, Pestana, & González-Conde, 2018; Valenzuela, Codina, Castillo, & Pestana, 2020; Valenzuela, Codina, & Pestana, 2020). However, in the case of situational variables, research has barely considered the impact of variables that structure everyday life such as temporal characteristics of work or living arrangements; variables that might entail certain patterns with a negative effect on procrastination.

1.3. The present study

In view of this background information, our aim in this study is to show how time perspectives and procrastination relate to personal and situational variables such as age, living arrangements, and the temporal characteristics of work. In so doing, we intend to expand the body of knowledge about these two processes and argue for these variables to be included in research and to guide intervention strategies.

2. Method

This study comprises a non-experimental associative (correlational) and transverse investigation (Ato, López, & Benavente, 2013). Accordingly, the relationship observed between the variables is oriented towards comparing groups, in other words, identifying the sectors of the population — in accordance with the variables studied — where differences are observed in accordance with time perspectives and factors of procrastination.

2.1. Participants

The sample comprised 720 working adults resident in Spain (390 men and 330 women), aged between 18 and 64 ($M = 40.44$; $SD = 9.82$). The sample was obtained purposively by proportional affixation based on an online panel, with a 95% confidence interval and 3.2% margin of error. The quotas used for the sample — based on the Spanish census as of 01/01/2018 (INE, 2018) — were sex and age (for the range of 18-64 years).

2.2. Instruments

Three questionnaires were used to obtain the information: an *ad hoc* questionnaire for the sociodemographic data and two validated scales, one for the time perspective and another for procrastination.

Sociodemographic data These were obtained through the questionnaire, which recorded: sex, age, participants' living arrangements (living alone, with children/parents/dependents) and organisation of time in work (time spent travelling to the place of work, hours worked, flexibility

with start and end times, and extending working hours).

Time perspective. This was analysed using the Zimbardo Time Perspective Inventory (ZTPI: Zimbardo & Boyd, 1999), adapted for the Spanish population by Díaz-Morales (2006). This instrument comprises 56 items relating to 5 dimensions (for each of them an example from the Inventory is given): two relating to the present (*hedonistic*: "When listening to my favourite music, I often lose all track of time"; and *fatalistic*: "Life today is too complicated; I would prefer the simpler life of the past"); two relating to the past (*positive*: "I like family rituals and traditions that are regularly repeated"; and *negative*: "Painful past experiences keep being replayed in my mind"); and one relating to the future ("Meeting tomorrow's deadlines and doing other necessary work comes before tonight's play" — without distinguishing between positive and negative extremes). The response format used a 5-point Likert-type scale, ranging from 1 ("very unlike me") to 5 ("very characteristic of me"). The observed Cronbach's alpha was acceptable ($\alpha = .87$) and even slightly higher than the values obtained by Díaz-Morales (2006), which were between .74 and .82.

Procrastination. This was measured using an instrument with 40 items validated for the Spanish population by Díaz-Morales et al. (2006). This test comprises three questionnaires (in each case, the Cronbach's alpha values obtained by Díaz-Morales et al. (2006) are

specified): the General Procrastination Scale (GP: Lay, 1986; $\alpha_{GP} = .84$), the Decisional Procrastination Questionnaire (DP: Mann, 1982; $\alpha_{DP} = .83$), and the Adult Inventory of Procrastination (AIP: McCown & Johnson, 1989; $\alpha_{AIP} = .81$). Combining these tests gives a total of 40 items, which correspond to four factors (with an example from each factor in each case): delaying behaviour (“I take several days to do tasks, including ones where I only need to sit down and do them”), indecision (“I delay making decisions until it is too late”), lack of punctuality (“My friends and family think I always wait until the last minute”), and lack of planning (“I prepare my clothes the night before an interview so that I am not late” —the scoring for this item is inverted). A Likert-type format was used with five response options (ranging from 1 —“very unlike me”— to 5 —“very characteristic of me”). All of the Cronbach’s alpha values obtained in the present study were acceptable ($\alpha_{GP} = .79$; $\alpha_{DP} = .88$; $\alpha_{AIP} = .87$).

2.3. Data collection procedure

The study followed the requirements of the bioethics committee of the Universidad de Barcelona (CBUB IRB00003099), and no further approval was required as the data obtained did not involve animal experiments or clinical experiments. This research also complies with the recommendations of the Consejo General de la Psicología de España, the Spanish Organic Data Protection Act (15/1999: Jefatura del Estado, 1999), and the Declaration of Helsinki (World Medical Association, 2013).

The fieldwork was preceded by two preparatory phases following the patterns of previous research performed in the field of leisure activities (Codina & Pestana, 2017; Codina, Pestana, & Stebbins, 2017; Codina, Pestana, Romeo, & Yepes, 2019) that used the panel of participants format. In the first phase, the research team worked with specialist technical staff to enter items into the software with the format that the participants would see. To prevent data loss, the questionnaire was programmed so that all of the questions had to be answered in order to complete it. The answer categories for each question were visible on one screen to avoid the need to move round it. After verifying the final programming of the questionnaire, the second phase started with a pilot test. Based on this test, the necessary changes in format were made.

Following some final operational checks, the potential participants on the panel were sent an email inviting them to take part in the study with a direct link to the instrument. This was a unique link that could not be reused once the responses had been submitted. Access to the questions was enabled during November 2019. The invitation was only sent to people from the panel of potential participants who fulfilled the age requirement established.

2.4. Information analysis process

The data obtained were analysed using the SPSS program, version 25. After the descriptive statistics (frequencies and percentages for sociodemographic variables; means, standard deviations, skew, kurtosis, and homoscedasticity for time perspective

and procrastination), associations between the variables were calculated with comparison of means (Student's *t* or ANOVA as appropriate). In the case of significant associations, the effect size is stated in the text.

3. Results

3.1. Sociodemographic data

From the sociodemographic information obtained (Table 1), age was analysed

in the following three age groups: 18-29 ($n = 128$; 17.8%), 30-49 ($n = 417$; 57.9%), and 50-64 ($n = 175$; 24.3%).

Regarding living arrangements (Table 1), 101 participants from the sample as a whole lived alone (14%), 452 lived with their partner (62.8%), 299 with children (41.5%), 53 with their parents (7.4%), and 37 had dependants (6% of the total).

TABLE 1. Prevalence of sociodemographic variables: sex, age, and living arrangements (N = 720).

Variables	n	%
Gender		
Male	390	54.2
Female	330	45.8
Age		
18-29	128	17.8
30-49	417	57.9
50-64	175	24.3
Cohabiting		
Alone		
Yes	101	14
No	619	86
Partner		
Yes	452	62.8
No	268	37.2
Children		
Yes	299	41.5
No	421	58.2
Parents		
Yes	53	7.4
No	667	92.6
Dependents		
Yes	37	6
No	683	94

Source: Own elaboration.

Of the variables relating to the temporal characteristics of work (Table 2), the largest group take a maximum of half an hour to travel to their place of work ($n = 524$; 72.8%), work for 40 hours or more per

week ($n = 417$; 57.9%), have rigid working hours ($n = 330$; 45.8%), and do not usually extend their working hours ($n = 240$, 33.33%), although 18.6% of participants extend their working hours infrequently.

TABLE 2. Prevalence of sociodemographic variables: temporal organisation of work ($N = 720$).

Variables	n	%
Travel time		
Max. 30'	524	72.8
Max. 60'	156	21.7
Over 60'	40	5.6
Hours worked		
Up to 39 h	303	42.1
40 h or more	417	57.9
Flexible work hours		
Rigid	330	45.8
Flexible (worker)	239	33.2
Flexible (company)	151	21
Extension of working day		
(Almost) every day	101	14
More than once a week	128	17.8
At least once a month	117	16.3
Infrequent	134	18.6
No	240	33.33

Source: Own elaboration.

3.2. Time perspective

Of the five time perspective dimensions (Table 3), the highest values were observed in cases of future ($M = 3.49$; $SD = 0.42$) and past positive ($M = 3.42$; $SD = 0.46$). In contrast, the lowest values corresponded to present fatalistic ($M = 2.88$; $SD = 0.57$). With regards to skew values, kurtosis, and the Kolmogorov-Smirnoff test, in all of the di-

mensions of the time perspective, the non-normality of the sample was established.

When connecting these values to the sociodemographic data, several dimensions of the time perspective displayed significant differences by sex, age, living arrangements, and temporal organisation of the working environment

TABLE 3. Means, standard deviations, Skewness, kurtosis and Kolmogorov-Smirnov test (K-S) for time perspectives and procrastination factors.

			Skewness		Kurtosis		K-S	
	M	SD	Value	SE	Value	EE	Value	p
Time perspectives								
Past negative	2.98	0.62	.094	.091	.349	.182	.085	.000
Past positive	3.42	0.46	-.105	.091	.524	.182	.055	.000
Present hedonistic	3.20	0.52	.085	.091	.978	.182	.063	.000
Present fatalistic	2.88	0.57	.321	.091	.687	.182	.081	.000
Future	3.49	0.42	-.075	.091	.371	.182	.046	.001
Procrastination factors								
Delaying behaviour	2.56	0.65	.176	.091	.170	.182	.051	.000
Indecision	2.58	0.68	.066	.091	-.008	.182	.072	.000
Lack of punctuality	2.28	0.71	.211	.091	-.485	.182	.079	.000
Lack of planning	2.26	0.41	.163	.091	1.118	.182	.063	.000

Source: Own elaboration.

(Tables 4 and 5), albeit with different effect sizes.

When comparing men and women (Table 4), higher values for present fatalistic ($t = -2.43$; $p < .015$; $d = .17$) were observed for women, albeit with a small effect size. With regards to age, the highest values for past negative ($F = 7.67$; $p < .001$; $d = .61$), present hedonistic ($F = 7.70$; $p < .000$; $d = .51$), and present fatalistic ($F = 5.703$; $p < .003$; $d = .59$) were observed among the youngest age group with a large effect size in all cases.

As for living arrangements (Table 4), present fatalistic ($t = -2.08$; $p < .039$; $d = .20$) was more apparent and future less apparent ($t = 2.41$; $p < .016$; $d = .27$) among people who live alone, with a small effect size in both cases. Among

people with children, less present hedonistic ($t = 2.31$; $p < .021$; $d = .17$) and present fatalistic ($t = 2.35$; $p < .019$; $d = .19$) was observed, with a small effect size. For their part, people living with their parents display — at a significant level and with a moderate effect size — more past negative ($t = 2.35$; $p < .019$; $d = .33$) and present hedonistic perspectives ($t = -2.16$; $p < .031$; $d = .30$). In contrast, people living with dependents display more accentuated present fatalistic ($t = 2.29$; $p < .027$; $d = .22$), although the effect size is small.

Finally, four aspects of the work environment influenced dimensions of the time perspective (Table 5) with a large effect size in all cases. People who spend more than an hour travelling to work display a higher level of present hedonistic ($F = 4.15$; $p < .016$; $d = .51$).

TABLE 4. Descriptive statistics for time perspectives by sex, age and living arrangements (N = 720).

Variables	Past negative (2.98±0.62)				Past positive (3.42±0.46)				Present hedonistic (3.20±0.52)				Present fatalistic (2.88±0.57)				Future (3.49±0.42)			
	M ± SD	t	p		M ± SD	t	p		M ± SD	t	p		M ± SD	t	p		M ± SD	t	p	
Gender																				
Male	2.95±0.61		.321		3.43±0.45	0.63	.524		3.19±0.52	-0.16	.872		2.84±0.58	-2.43	.015		3.47±0.42	-1.52	.127	
Female	3.00±0.64				3.41±0.48				3.20±0.53				2.94±0.56				3.52±0.43			
Age*																				
18-29	3.17±0.65	7.67	.001		3.47±0.47	1.16	.314		3.35±0.52	7.70	.000		3.04±0.61	5.70	.003		3.44±0.45	.91	.403	
30-49	2.95±0.61				3.42±0.47				3.17±0.52				2.86±0.57				3.50±0.42			
50-64	2.91±0.61				3.38±0.44				3.13±0.49				2.84±0.53				3.50±0.41			
Living arrangements																				
Alone		-0.35	.725		3.34±0.43	1.94	.053		3.23±0.45	-0.71	.476		2.99±0.54	-2.08	.039		3.39±0.54	2.41	.016	
Yes	3.00±0.60																			
No	2.97±0.63				3.43±0.47				3.19±0.53				2.87±0.58				3.51±0.42			
Partner		0.53	.594			-1.92	.054			-0.14	.883		0.65	.511				-0.79	.426	
Yes	2.97±0.64				3.44±0.47				3.20±0.52				2.87±0.56				3.50±0.43			
No	2.99±0.60				3.38±0.45				3.19±0.53				2.90±0.59				3.47±0.42			
Children		1.21	.226			-0.42	.674			2.32	.021		2.35	.019				-1.73	.083	
Yes	2.94±0.64				3.43±0.46				3.14±0.55				2.82±0.58				3.52±0.40			
No	3.00±0.61				3.41±0.47				3.23±0.50				2.83±0.56				3.47±0.44			
Parents		-2.79	.007			0.11	.910			-2.16	.031		-1.73	.084				1.68	.097	
Yes	3.17±0.51				3.41±0.51				3.34±0.53				3.02±0.59				3.40±0.38			
No	2.96±0.63				3.42±0.46				3.18±0.52				2.87±0.57				3.50±0.43			
Dependents		0.62	.533			-1.26	.207			1.34	.178		2.29	.027				-0.29	.770	
Yes	3.04±0.58				3.34±0.46				3.30±0.52				3.06±0.53				3.49±0.33			
No	2.97±0.63				3.44±0.47				3.18±0.53				2.85±0.58				3.51±0.43			

Note: * F reported in the case of this variable. Source: Own elaboration.

TABLE 5. Descriptive statistics for time perspectives by temporal organisation of work (N = 720).

Variables	Past negative (2.98±0.62)			Past positive (3.42±0.46)			Present hedonistic (3.20±0.52)			Present fatalistic (2.88±0.57)			Future (3.49±0.42)		
	M ± SD	F	p	M ± SD	F	p	M ± SD	F	p	M ± SD	F	p	M ± SD	F	p
Work environment															
Travel time		1.18	.307		0.61	.542		4.15	.016		2.62	0.73		0.60	.549
Max. 30'	2.96±0.61			3.42±0.47			3.19±0.51			2.87±0.55			3.48±0.42		
Max. 60'	3.01±0.63			3.42±0.45			3.16±0.51			2.89±0.56			3.52±0.42		
Over 60'	3.10±0.71			3.34±0.48			3.42±0.62			3.08±0.77			3.47±0.51		
Hours worked*		-1.24	.214		-1.91	.056		-156	.119		0.37	.709		-0.50	.612
Up to 39 h	2.94±0.59			3.38±0.43			3.16±0.48			2.89±0.53			3.48±0.40		
40 h or more	3.00±0.65			3.45±0.49			3.22±0.54			2.88±0.60			3.50±0.44		
Flexible work hours		2.17	.114		1.01	.364		0.72	.484		3.50	.031		0.07	.932
Rigid	3.03±0.62			3.44±0.43			3.19±0.51			2.94±0.56			3.51±0.39		
Flexible (worker)	2.93±0.64			3.39±0.51			3.17±0.56			2.81±0.60			3.49±0.48		
Flexible (company)	2.94±0.60			3.42±0.46			3.24±0.48			2.89±0.63			3.44±0.39		
Extension of working day		1.73	.141		0.53	.713		3.13	.014		1.13	.339		1.84	.119
(Almost) every day	3.10±0.70			3.46±0.49			3.35±0.54			2.99±0.61			3.55±0.42		
More than once a week	3.01±0.59			3.40±0.47			3.22±0.52			2.89±0.59			3.55±0.39		
At least once a month	2.90±0.61			3.37±0.43			3.18±0.48			2.83±0.54			3.43±0.46		
Infrequent	2.90±0.55			3.44±0.45			3.18±0.49			2.85±0.57			3.48±0.43		
No	2.96±0.64			3.42±0.48			3.13±0.54			2.88±0.56			3.47±0.42		

Note: * t reported in the case of this variable. Source: Own elaboration.

When working hours are rigid, more present fatalistic is observed ($F = 3.50$; $p < .031$; $d = .53$). And when working hours are extended every day or almost every day, there is more present hedonistic ($F = 3.13$; $p < .014$; $d = .51$).

3.3. Procrastination

In the sample as a whole, of the four procrastination factors (Table 3), the highest scores were for indecision ($M = 2.58$; $SD = 0.68$) and delaying behaviour ($M = 2.56$; $SD = 0.65$), both with similar values. Consequently, arriving late ($M = 2.28$; $SD = 0.71$) and lack of planning ($M = 2.26$; $SD = 0.41$) were the factors with the lowest presence (again with similar scores for the two). Regarding the skew, kurtosis, and Kolmogorov-Smirnoff test values, all of the procrastination factors are non-normally distributed in the sample as a whole.

When associating sociodemographic values with procrastination values, there were significant differences by age, living alone/with children, and extending working hours (Tables 6 and 7).

In the case of sex, no significant differences were observed in procrastination for men and women. However, participants aged 18-29 had the highest scores for all of the factors of this problem of time domain or control (Table 6), apart from indecision. Specifically, the following significant values were obtained: delaying behaviour ($F = 7.67$; $p < .001$; $d = .63$), lack of punctuality ($F = 7.70$; $p < .000$; $d = .69$), and

lack of planning ($F = 5.70$; $p < .003$; $d = .40$), with large effect sizes for delaying behaviour and lack of punctuality and a moderate effect size for lack of planning.

Regarding participants' living arrangements (Table 6), living alone is characterised by a greater lack of planning ($t = -3.09$; $p < .002$; $d = .34$) with a moderate effect size. In contrast, there is a greater lack of planning when living with a partner ($t = 2.45$; $p < .014$; $d = .19$), although the effect size is small. Living with children is characterised by more presence of delaying behaviour ($t = 2.41$; $p < .016$; $d = .18$), indecision ($t = 2.64$; $p < .008$; $d = .20$), and lack of punctuality ($t = 2.33$; $p < .020$; $d = .18$), although the effect sizes are small.

Of the variables relating to the temporal organisation of work (Table 7), people who extend their working hours every day or almost every day display more delaying behaviour ($F = 3.15$; $p < .014$; $d = .64$). This association is significant and has a large effect size.

4. Discussion

This research expands knowledge of both time perspectives and procrastination by providing new information about them in relation to personal and situational variables such as age, living arrangements, and the temporal characteristics of work. This information can be used in both research and interventions.

TABLE 6. Descriptive statistics for procrastination factors by sex, age and living arrangements (N = 720).

Variables	Delaying behaviour (2.56±0.65)			Indecision (2.58±0.68)			Lack of punctuality (2.28±0.71)			Lack of planning (2.26±0.41)		
	M ± SD	t	p	M ± SD	t	p	M ± SD	t	p	M ± SD	t	p
Gender		0.94	.345		0.58	.558		-1.16	.246		1.87	.062
Male	2.58±0.63			2.60±0.67			2.25±0.67			2.29±0.40		
Female	2.53±0.67			2.57±0.70			2.31±0.75			2.23±0.42		
Age*		7.67	.001		1.16	.314		7.70	.000		5.70	.003
18-29	2.82±0.64			2.86±0.65			2.52±0.77			2.35±0.41		
30-49	2.53±0.62			2.57±0.66			2.24±0.69			2.25±0.42		
50-64	2.42±0.67			2.41±0.69			2.19±0.66			2.22±0.37		
Cohabitating												
Alone		-1.23	.218		-0.62	.532		-0.84	.400		-3.09	.002
Yes	2.63±0.69			2.62±0.69			2.33±0.74			2.38±0.45		
No	2.54±0.64			2.58±0.68			2.27±0.70			2.24±0.40		
Partner		0.60	.543		0.75	.451		0.91	.362		2.45	.014
Yes	2.55±0.64			2.57±0.69			2.26±0.71			2.23±0.39		
No	2.58±0.67			2.61±0.67			2.31±0.69			2.31±0.43		
Children		2.41	.016		2.64	.008		2.33	.020		1.76	.078
Yes	2.49±0.62			2.50±0.65			2.20±0.65			2.23±0.38		
No	2.61±0.67			2.64±0.70			2.33±0.74			2.28±0.43		
Parents		-2.89	.004		-3.57	.000		-2.60	.009		-1.21	.229
Yes	2.81±0.67			2.90±0.74			2.52±0.72			2.32±0.38		
No	2.54±0.65			2.56±0.67			2.26±0.70			2.26±0.41		
Dependents		0.15	.881		-0.86	.387		-0.22	.827		-0.08	.935
Yes	2.56±0.67			2.48±0.68			2.25±0.59			2.24±0.40		
No	2.54±0.64			2.58±0.68			2.27±0.71			2.24±0.40		

Note: * F reported in the case of this variable. Source: Own elaboration.

TABLE 7. Descriptive statistics for procrastination by temporal organisation of work (N = 720).

Variables	Delaying behaviour (2.56±0.65)			Indecision (2.58±0.68)			Lack of punctuality (2.28±0.71)			Lack of planning (2.26±0.41)		
	M ± SD	F	p	M ± SD	F	p	M ± SD	F	p	M ± SD	F	p
Work environment												
Travel time		1.98	.139		0.25	.774		1.27	.280		0.47	.625
Max. 30'	2.56±0.64			2.58±0.67			2.27±0.70			2.27±0.39		
Max. 60'	2.49±0.65			2.57±0.69			2.25±0.67			2.24±0.42		
Over 60'	2.72±0.81			2.66±0.76			2.45±0.87			2.23±0.55		
Hours worked*												
Up to 39 h	2.56±0.62	0.14	.886	2.63±0.65	1.54	.124	2.33±0.70	1.69	.091	2.25±0.38	-0.53	.591
40 h or more	2.55±0.67			2.55±0.70			2.24±0.71			2.27±0.43		
Flexible work hours												
Rigid	2.56±0.65	0.07	.932	2.61±0.69	0.49	.613	2.29±0.72	0.26	.765	2.23±0.39	1.40	.247
Flexible (worker)	2.57±0.67			2.57±0.68			2.29±0.69			2.29±0.41		
Flexible (company)	2.54±0.62			2.55±0.67			2.24±0.69			2.27±0.43		
Extension of working day												
(Almost) every day	2.75±0.72	3.15	.014	2.65±0.81	0.27	.896	2.42±0.78	1.53	.190	2.29±0.39	0.88	.471
More than once a week	2.51±0.69			2.55±0.73			2.29±0.76			2.24±0.43		
At least once a month	2.60±0.52			2.57±0.61			2.29±0.65			2.31±0.39		
Infrequent	2.53±0.65			2.57±0.60			2.21±0.68			2.26±0.43		
No	2.49±0.64			2.58±0.67			2.24±0.68			2.24±0.40		

Note: * t reported in the case of this variable. Source: Own elaboration.

We found that the sample studied does not display a dynamic of time perspectives that comprise a balanced temporal orientation (Boniwell & Zimbardo, 2004; Sircova et al., 2014, among others). Nonetheless, in general — and in a reasonably stable way across the different age groups — the sample scores highly in the two functional perspectives (past positive and future) and has low scores in one of the two dysfunctional ones (present fatalistic). Therefore, while it does not match the standard of the profile of a balanced or optimal time perspective, it does approach it. In a more practical sense, in the sample studied, temporal competence (Zaleski, 1994) to adapt skillfully and flexibly to challenges in life, is negatively affected by a certain presence of past negative.

In light of these general results, workers aged between 18 and 29 display a more worrying time perspective profile: they score highly on the two dysfunctional time perspectives — past negative and present fatalistic — and on present hedonistic. According to previous studies (Ferrari & Díaz-Morales, 2007; Shell & Husman, 2001), the high score on the two high present perspectives indicates that they feel good and secure in different settings. However, it is noteworthy that among young working people, no prevalence of the future perspective is apparent, something which suggests that — very probably compensating for an uncertain future — the present hedonistic perspective is intensified.

With regards to living arrangements, a sociodemographic variable that had not previously been studied in relation to time perspective, the data obtained reflect unexpected realities. In effect, they show how potent living arrangements are in personal time perspectives. Specifically, we observed that people who live alone score highly on the present fatalistic and future perspectives and so they seem to have temporal attitudes that are not very positive and stimulating; this leads us to note the importance of cohabiting with other people, a question that will have to be explored in more detail in future. With people who live with other generations, we found the following: the presence of children in the home inhibits present time perspectives (fatalistic and hedonistic), perhaps because of the novelties, uncertainties, and changes linked to the children's lives; living with parents activates the past negative and present hedonistic perspectives, as a balance between the attitude towards an unsatisfactory past and living in the present in the best way; and, finally, living with other dependants is associated with a predominance of the present fatalistic perspective. In this case, the living arrangements-dependence conditions might be experienced as a limiting factor for living in the present or making plans for the future. Therefore, living with people from other generations clearly and in a differentiated way — depending on the role performed in the home — shapes the predominant time perspectives.

The results obtained suggest that psycho-educational interventions oriented towards good time domain or control practices should consider the differing realities living arrangements promote in different individuals. For example, while people with dependants might find their attitudes to the future impaired, this characteristic should change when the position of responsibility for a dependant changes (for interventions with carers of dependants, see Yuan & Jhian, 2017).

As for the relationship between time perspectives and the temporal characteristics of work, we have also identified unexpected negative and positive temporal attitudes. Regarding the negative ones, if the working day has a rigid timetable, the present fatalistic perspective scores highly. This agrees with the results obtained by Cladellas and Badia (2010) regarding teachers' time management; having working hours that are fixed and established by other people is dysfunctional. With regards to the positive relationships, if travelling to work takes more than 60 minutes or if the working day is extended, higher scores are found for the present hedonistic perspective. Therefore, far from being a negative load, this travel time (which is neither work nor leisure) seems to provide optimism in temporal attitudes, with a similar outcome from extension of the working day. As a result of these data, flexibility in working hours and enjoyment of the time spent travelling to work seem to be two elements to consider when promoting the experience of control of time in

working people — something which, in the long term, could comprise a source of well-being, quality of life, or both (as noted by Yang, Xu, & Zhu, 2015).

For its part, procrastination is a problem which, in general terms, does not occur in all of its dimensions in the sample studied. In particular, its manifestations as late arrival or not planning are not relevant; in contrast, procrastinatory behaviour is observed with regards to indecision and delay. That said, when procrastination is evaluated by age bands, we found that people aged between 18 and 29 have significant high scores for almost all procrastination factors (except for indecision). Consequently, among working people — not university students — the younger ones generally procrastinate the most, a trend documented above all in the academic field (van Eerde, 2003). This finding concerning procrastination in young working people, along with the finding relating to present time perspectives alerts us to the need to investigate in detail young workers as a group, as well as agreeing with previous studies where the lack of future correlates with procrastination (Díaz-Morales, 2019).

Regarding living arrangements and procrastination, we found that people who live alone plan less; in this sense, it seems that the lack of a need to coordinate with others means that they disregard this aspect of time management (it should be recalled that people who live alone had the least future perspective). In contrast, people who live with

a partner score higher in planning. It is also interesting to evaluate procrastinatory tendencies among people who live with their children. In this case, scores for delaying behaviour, indecision, and late arrival are low. These results seem to derive from the role of the person who cares for, educates, and protects descendants. As can be seen, in interventions aimed at favouring time control or domain — counteracting the effects of procrastination — it is also important to consider living arrangements. For example, it is worth considering the changes people might experience when they stop being the main figure responsible for their children's routine.

The results obtained — which are both revealing and promising — are not unaffected by the limitations of the study. Accordingly, using samples in future which as well as being distributed by sex and age include other variables (such as geographical distribution or activities other than work) might strengthen the associations obtained in time perspective and procrastination (and their corresponding effect sizes). Something else to consider in future research is the type of sampling used; so, unlike intentional panel sampling, it could be worth considering random sampling based on the municipal census.

In summary, this work underlines how living arrangements and certain temporal characteristics of work are associated with people's time perspectives profiles as well as procrastinatory tendencies. These findings reveal working

and living arrangements — which agencies involved in interventions can affect — that are positively and negatively related in time domain, comprising evidence regarding variables that future research cannot neglect.

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Digital environments, connectivity and education: Time perception and management in the construction of young people's digital identity

Entornos digitales, conectividad y educación. Percepción y gestión del tiempo en la construcción de la identidad digital de la juventud

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Abstract:

This paper discusses the first results of the CONECT-ID project, which addresses young people's digital identities from the perspective of hyperconnectivity based on their perception of time in digital leisure. Its main objective is to analyse young people's time management and their hyper-connected perception of time. To do so, a qualitative study was performed using discussion groups with 130 participants organised in groups of respondents aged 12 to 16 and 16 to 18. Analysis was then performed

using the NVivo software program. The results showed a difference in use and tools between the age groups. Both sets of groups claim to lose the concept of time, in particular the older ones. Younger respondents report having less availability of screens and more parental controls, while in contrast older ones state that they use the time management strategy less as self-regulation. School controls refer to students not being allowed to take mobile phones to school or use them there. It is apparent that the construction of young persons' identity is

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a continuum between different virtual spaces and times and face to face situations. Young people with less parental control over time management require more self-management and self-regulation mechanisms. The results found warrant focussing pedagogical discourse on designing and promoting quality educational actions that make it possible to go beyond setting limits. This can be achieved by working on establishing healthy interpersonal relationships, social and communication skills, and time management in a range of settings that provide lasting benefits beyond mere entertainment.

Keywords: digital technology, educational sciences, identity, leisure, qualitative analysis, time perception, youth.

Resumen:

En este trabajo se presentan los primeros resultados del proyecto CONECT-ID que aborda la identidad digital de la juventud, desde los enclaves de la hiperconectividad y en base a su percepción del tiempo en el ocio digital. El objetivo principal reside en analizar la gestión del tiempo y la percepción del tiempo hiperconectado de los jóvenes. Para ello, se ha realizado un estudio cualitativo aplicando la técnica de grupos de discusión con 130 participantes organizados en grupos de 12 a 16 años

y de 16 a 18 años. Posteriormente, se ha realizado un análisis con el software NVivo. Los resultados hallados señalan una diferencia de usos y herramientas entre los grupos de edad establecidos. Ambos grupos afirman perder la concepción de temporalidad, especialmente en el caso de los mayores. Mientras los menores afirman tener menor disponibilidad y mayores controles parentales; los mayores asumen utilizar menos la estrategia de gestión de tiempos como autorregulación. Los controles escolares se remiten a no dejarles llevar ni utilizar el móvil. Se observa como la construcción identitaria del joven se configura como un continuo interferido por diferentes espacios y tiempos virtuales y presenciales. Los jóvenes que tienen un menor control parental en la gestión del tiempo requieren mayores mecanismos de autogestión y autorregulación. Los resultados hallados merecen centrar el discurso pedagógico en torno a diseñar y potenciar actuaciones educativas de calidad que les permitan ir más allá de marcarse límites, trabajando el establecimiento de relaciones interpersonales saludables, las habilidades sociales y comunicativas, así como la gestión de su tiempo en escenarios que les reporten beneficios duraderos por encima del mero entretenimiento.

Descriptores: conectividad, identidad, juventud, espacios de ocio, percepción del tiempo, entornos digitales.

1. State of the question

Discussion of time is nothing new, but it is always of interest. It centres our attention on one of the variables around which we narrate human life; the soil in which

humankind grows, an essential dimension of the human being, an opportunity and fertile ground for our development, in which we are constricted but never determined. This non-determination makes it

an opportunity and starting point that we should know how to manage and educate.

To refer to time, we turn to various spatial metaphors that we extrapolate from our collective imagination (Safranski, 2017). We base our perception and notion of time on our comprehension of physical space (Blommaert & De Fina, 2016). But what happens when this space is a virtual one? What happens when nothing is delimited, but instead we find ourselves immersed in a reality without boundaries? What happens when we base our time perception on a porous space? How much is our identity changing because of the fact that the basic dimensions of identity—space and time—are being shifted into a hyperconnected reality where identity becomes liquid, instability is the ultimate representation of reality, the medium is ambivalent, the body is immaterial, and even the self acquires different forms of expression?

These questions are the foundation of the CONECT-ID¹ project, in which we study young people's digital identity by considering their hyperconnected enclaves on the basis of their perception of time in digital leisure. We focus on young people because it is they who experience for themselves the consequences, challenges, and risks of hyperconnectivity. Risks which are related to dependence on or abuse of technology and screens (Cloquell, 2015); consequences that include inequalities and new forms of social exclusion (Ricoy & Martínez-Carrera, 2020); and challenges that are directly related to factors of vulnerability in the development of young people's iden-

tities, associated with ways of externalising their self, the need to influence and be influenced, consumption of information that is not always filtered, etc. (Sanz Arazuri, Alonso Ruiz, Sáenz de Jubera Ocón, Ponce de León Elizondo, & Valdemoros San Emeterio, 2018; Valdemoros, Alonso, & Codina, 2018). A risk marked by a lack or otherwise of responsibility or ethical and/or critical sense (Ibáñez-Martín & Fuentes, 2015), supported, perhaps, by fragile autonomy in their personal and social development and time management that is sometimes irresponsible.

Here we present the first results of the research project mentioned above: a qualitative study, using discussion groups as an instrument to analyse time management and young people's perception of hyperconnected time. We consider a wide cross-section of young people, aged from 12 to 18 to understand the evolution of the phenomenon and how much the effects undergo evolution or involution during the process of development. There are hardly any responses to these effects at an educational level beyond the pedagogy of limits, associated in many cases with forbidding this connected time, perhaps because the discourse on these effects focusses on the excess and loss of the notion time when they are connected.

2. Theoretical framework and state of the question

There has been some research into online presence and time management (Livingstone, 2013; Loveless & Williamson, 2017; Serrano-Puche, 2013; Viñals, Abad,

& Aguilar, 2014), focussing primarily on the chronological or sequential presence of time, uses, moments, time bands (Boyd, 2014), but less on the other lived and experienced form, kairological time. In the young person's view, this connected time is generally appropriate, adequate, non-determined, and felt, and does not always correspond with the time that has passed. That instant, that occurrence, that place — the screen (computer, mobile phone, tablet, games console, etc.) — which for a moment becomes unique, which is not the now or the present, but rather the time that passes by (Case, 2016; Cruz, 2017).

Use of screens by young people has led research to analyse the different selves (Torres, 2017) young people construct. "It is multiple, but integrated. You can have a sense of yourself without it being a unique one" (Turkle, 1997, p. 325). Young people's lives become mediated by screens. One aspect which is noted is that social media, video games, the places young people frequent are transversal and branched on the internet, meaning it is possible to construct different identities in an attempt to satisfy desires, provoke, influence, or simply achieve that which in traditional settings is not easy for them (Nilan & Feixa, 2014).

Academic literature does not discuss young people's identities but rather identity practices connected to new practices for the socialisation of young people that derive from the different social narratives and roles they manifest (Awan & Gauntlett, 2013; Georgakopoulou, 2017; Marlowe, Bartley, & Collins, 2017). The construction of their identity is based on how

they present themselves and how they are judged, that is to say, constantly in comparison with others (Vansieleghem, Vlieghe, & Zahn, 2019). In other words, the internet makes it possible for young people's identities to be shaped with contributions from multiple digital identities in different fields of action. This shaping results in a sensation of liberty and autonomy based on socialisation and interconnection with others; the otherness of the self as the foundation of personal and collective identity (Brubaker & Cooper, 2000).

However, this is not autonomy as such; the literature has for years noted a certain symmetrical positioning in that technology forms part of young people's lives, it becomes their social space-time and, consequently, it is with them, becoming subjective (Pangrazio, 2019; Turkle, 2011; Turkle, Taggart, Kidd, & Dasté, 2006). It becomes a way to expand their autonomy as the basis of their socialisation and relationships. Young people are autonomous if the internet allows them to interact with other young people, enriching and sharing their interests, experiences, and ideas, creating co-narratives understood as interdependent and interrelated social dynamics (Beneito-Montagut, 2015; Georgakopoulou, 2017). Research largely argues for a model of autonomy derived from Vygotsky's thinking, basing it on a phylogenetic and interdependent link between young people and screens. Young people become embodied in technological settings (Wängqvist & Frisén, 2016).

This embodiment is not just individual but also social. Research emphasises

the good side of the internet and screens in that they offer young people a wide range of possible social relationships. They expand their options for building the relational self, as they complement and enrich face to face social relationships rather than replacing them. They favour the creation of a collective intelligence, triggering positive social recognition mechanisms (Malone & Bernstein, 2015). This is where the internet is of value for empowering young people and encouraging participation (Wängqvist & Frisén, 2016). It is a privileged social setting for young people (Sanz Arazuri et al., 2018).

Families' concerns about inclusion in social networks and the disconnection from the family sphere associated with it are another topic that has been studied, with an emphasis on the need to prepare the family to teach young people to have an understanding of how to act and be independently and responsibly with these technologies (Ruiz-Corbella & De Juanas-Oliva, 2013); some recent studies (Gündüz, 2017; Hodkinson, 2017; Valdemoros, Sanz, & Ponce de León, 2017) indicate a connection between low digital consumption in children and families with a closer emotional bond between family members, and so abuse of these tools could be prejudicial for family coexistence, supported by the idea that young people, on social networks, are concerned more with self-expression than self-reflection (Mace, 2020). There is also research that demystifies the ways young people conceal their online life from their families (Shin & Lwin, 2017).

In similarly positive terms, there is research that sees screens as the implementation of a technological ecosystem that is of interest for cognitive development and learning. The internet's potential as a creative and innovative setting that favours different forms of multiliteracy, creativity, and learning has been noted (Gee & Es-teban-Guitart, 2019; Hou, Rashid, & Lee, 2017; Pérez Latorre, 2015; Scolari, 2016).

Nonetheless, there are data that suggest that this time is not always a positive one for young people, as a result of the culture of mere entertainment and pleasure (Muros, Aragón, & Bustos, 2013; Iqani & Schroeder, 2016). Most of these data are based on the immediacy of information, on young people publishing their private lives, and on extending free time to social life in general, where connectivity for the sake of connectivity is what takes precedence when filling time. These works conclude that individualism becomes intensified. A virtual culture where young people's main fears are boredom, disconnection, loneliness, and isolation (Fernández & Gutiérrez, 2017).

Among the risks, there are recent studies that analyse the negative socioemotional effects of abuse of social networks and online games (Vannucci, Simpson, Gagnon, & Ohannessian, 2020), and studies that focus on cyberbullying (Garmendia Larrañaga, Jiménez Iglesias, & Larrañaga Aizpuru, 2019) where it is noted that for young people technology and screens create liberty and creativity that are not always well understood, often becoming oppression and bullying (Garaigordobil &

Larrain, 2020), or even inequality (Rey, Quintana-Orts, Mérida-López, & Extremera, 2018). Other results relate to the risk of consolidating an ethic associated with a free culture where everything is accepted and anything goes, questioning concepts such as ownership or authority (Hu, Zhao, & Huang, 2015), sometimes finding young people who are immersed in processes of coming to terms with participation in life online, accepting risks, based on a practical rationality; the internet as an opportunity, without any previous reflection.

3. Methodology and research results

This research uses a qualitative design and is part of a participatory study (Tojar, 2006) with the aim of informing the design of quality educational interventions.

To this end, we propose the following research objectives:

1. To uncover young people's perception of temporal availability, use, and habits of technologies and networks.
2. To consider in depth the different time-management strategies reported
3. To determine whether there are differences between groups in the dimensions studied, taking participants' age as a reference point.

3.1. Instrument and analytical procedure

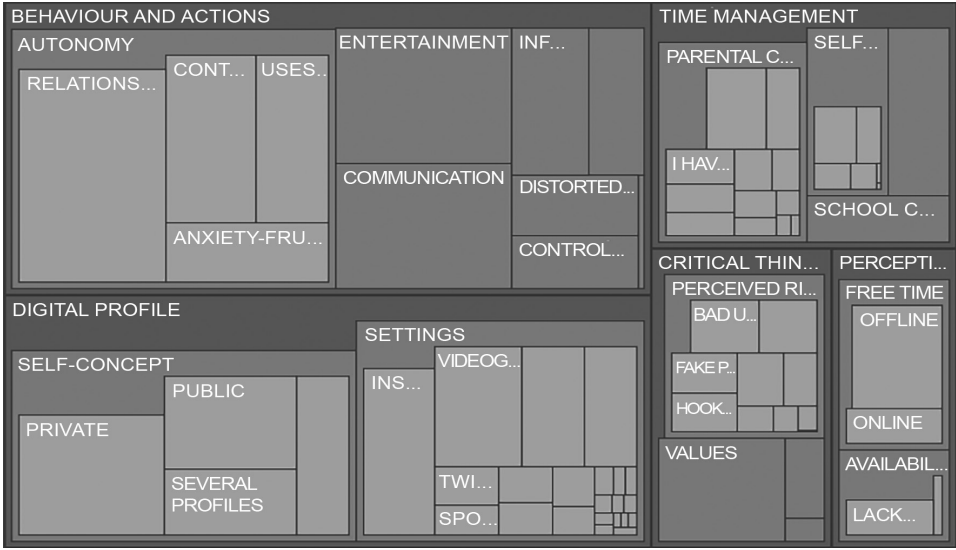
To approach young people's perceptions, opinions, and motivations regarding their use of technology and habits, we

used the discussion group technique. The Research Group designed a semi-structured prior script in five formative workshops with the cooperation of nine experts from various areas (theory and history of education, research methods, sociology, and anthropology). This script included questions to cover with the participants relating to their perception and uses of free time and their digital profile and habits. To validate it, we held two discussion groups, one with participants aged 12-15 and another with participants aged 16-18.

The selection of participants was carried out after receiving permission from the secondary schools, which were selected in accordance with accessibility criteria, and from the families of the young people, seeking the presence of rural (3) and urban (4) schools, state (7), state assisted (2), and private schools (1) from different autonomous regions. The meetings were moderated by pairs of experts who were involved in preparing the prior semi-structured script and in the process of preparing categories for the subsequent analysis of the content.

A total of 14 meetings were held which were recorded in audio format, transcribed, and entered for coding and subsequent analysis in the NVivo software program (V.12, research group licence) in accordance with a system of categories elaborated by 3 researchers through an inductive procedure, supported by the previous theoretical framework and which is shown in Graph 1 (Miles & Huberman, 1994).

GRAPH 1. Hierarchy chart of discussions by number of coded references².



Words shortened in the graphic: RELATIONS... = relationships on networks; CONT... = content to be published; USES... = uses and habits; ANXIETY-FRU... = anxiety-frustration; INF... = information; DISTORTED... = distorted image; CONTROL... = controlling emotions; PARENTAL C... = parental controls; I HAV... = I have them on networks; SELF... = self-regulating; SCHOOL C... = school controls; INS... = Instagram; VIDEOG... = videogames; TWI... = Twitter; SPO... = Spotify; CRITICAL THIN... = critical thinking; PERCEIVED RI... = perceived risks; BAD U... = bad uses; FAKE P... = fake profiles; HOOK... = hooked; PERCEPTI... = perception of time; AVAILABIL... = availability; LACK... = lack of time.

Source: Own elaboration.

In line with the system of categories, 7270 references were recorded from the discussions that allude to behaviour and actions during leisure time, digital profile, and management and perception of leisure time. The coding process showed that 3229 of these references came from the six groups of participants aged 12-15 and 4041 were from the groups of people aged 16-18.

After coding the information in accordance with the system of categories established in advance, a discourse analysis based on 3 dimensions was used: digital profile, time perception, and time management (see Table 1), considering

in depth the differences found in the two age groups established.

TABLE 1. Study dimensions and categories.

Dimensions	Categories
Digital profile	Virtual settings
Time perception	Free time
	Availability
Time management	Self-regulation
	Concept of time
	Anxiety-frustration
	Parental controls
	School controls

Fuente: Elaboración propia.

3.2. Participants

This study had 130 participants, organised into 14 groups of people aged 16 to 18 and 6 groups of people aged from 12 to 15. There was diversity with regards to the profile of the young people according to their studies (principally secondary educa-

tion and baccalaureate), ownership of the participating schools (1 private school, 2 state-assisted schools, and 4 state schools), location (6 Spanish municipalities), gender (there was a 50-50 split in the sample of respondents), and educational level (see Table 2).

TABLE 2. Description of groups of participants.

Group code	n	Age		Gender		Year		Location	Ownership of school
GBAR001	7	\bar{x} S _x	17.57 .79	H M	6 1	1FP Básica	7	Barcelona	Private
GBAR002	8	\bar{x} S _x	18.00 .00	H M	3 5	1FP	8	Barcelona	Private
GBU002	8	\bar{x} S _x	15.00 1.07	H M	4 4	3ESO 4ESO	4 4	Burgos	State assisted
GBU001	8	\bar{x} S _x	12.50 .53	H M	4 4	1ESO 2ESO	4 4	Burgos	State assisted
GMANZ001	8	\bar{x} S _x	13.00 .93	H M	4 4	1ESO 2ESO 3ESO	3 2 3	Manzanares (Ciudad Real)	State
GMANZ002	12	\bar{x} S _x	15.67 .65	H M	5 7	1BACH 4ESO	3 9	Manzanares (Ciudad Real)	State
GPLA001	16	\bar{x} S _x	13.81 1.17	H M	9 7	ESO	16	Plasencia (Cáceres)	State
GPLA002	7	\bar{x} S _x	17.57 .53	H M	4 3	1FP 2BACH	4 3	Plasencia (Cáceres)	State
GSA001	6	\bar{x} S _x	13.83 .41	H M	4 2	1ESO 2ESO 3ESO	6	Salamanca	State and State Assisted
GSA002	8	\bar{x} S _x	16.12 .83	H M	4 4	1BACH 4ESO	6 2	Salamanca	State and State Assisted
GSA003	10	\bar{x} S _x	13.20 1.03	H M	5 5	1ESO 2ESO 3ESO	10	Peñaranda (Salamanca)	State
GSA004	11	\bar{x} S _x	16.09 .8312	H M	4 7	1BACH 1FPB 4ESO	6 2 3	Peñaranda (Salamanca)	State
GSA005	11	\bar{x} S _x	13.46 1.29	H M	4 7	1ESO 3ESO	6 5	Salamanca	State
GSA006	10	\bar{x} S _x	16.30 .67	H M	5 5	1BACH 2BACH	10	Salamanca	State

Source: Own elaboration.

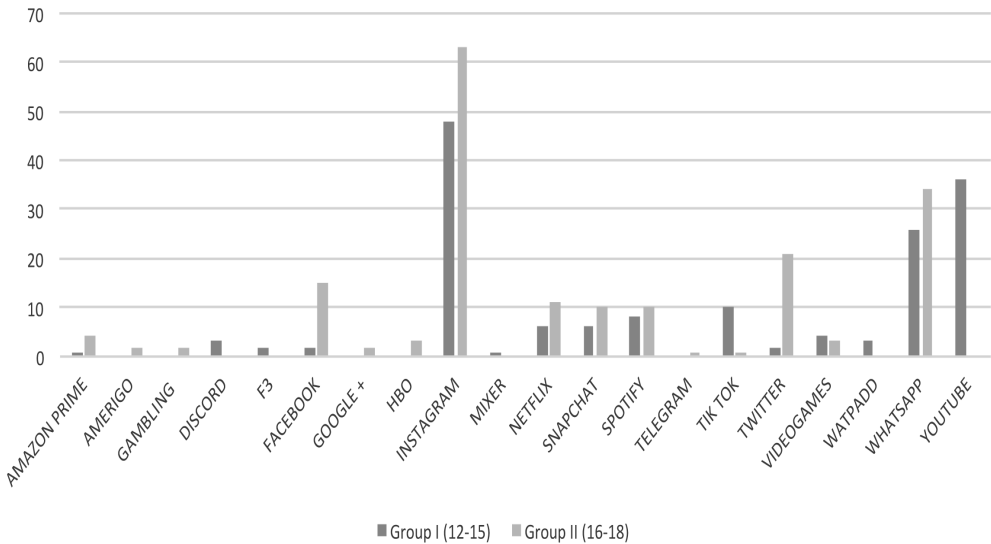
4. Results and discussion

4.1. Virtual settings and digital profile

In the analysis of digital profiles, taking the settings and spaces where young people act and interact as the

variable, it is apparent that social media networks and multimedia entertainment channels and platforms are the spaces where they are mainly present (see Graph 2).

GRAPH 2. Apps mentioned in discussions.



Source: Own elaboration.

In the investigation into the behaviour they display and what they look for in these apps and networks, young people show that they seek to communicate with their peer group and share personal information, such as posting large numbers of photographs, principally on Instagram and WhatsApp. This provides them with entertainment, displaying their tastes and interests or the main leisure activities they practice offline (travel, sporting events, and going to parties in the case of the older ones), aspects identified in other pieces of research (Sanz Arazuri et al., 2018). As

a result of the social desirability effect, they state that they generally appear just as they are in the virtual setting, but digging a little deeper, they admit to using filters that enable them to give a better image of themselves, as this participant states:

Because you want your profile to be like ... when you visit it you say ... wow, there are cool photos here. You want it to give the impression that you look good. (Part_3_GSA003_PEÑARANDA).

They use strategies to show their different selves or part of theirself, report-

ing that in one social network that have various profiles, a “public” one with less screening of followers and a so-called “private” one where they share information with people they regard as closer, excluding their parents.

I have my public account and my private one, but because the idea with the public one is that I have lots of followers so anyone can follow me, and the other one is more for my friends, closer friends, so I post more things there, more of my things. (Part_1_GBAR002).

Social networks are at the forefront of the favoured virtual settings, as already shown by other research on the same area (Ibrahim, Wang, & Bourne, 2017; Ruiz-Corbella & De Juanas-Oliva, 2013) where young people are uninhibited to a greater or lesser extent depending on their perceived sensation of control (Ricoy & Martínez-Carrera, 2020). This virtual setting becomes an opportunity for exploring and constructing their identity—or identities—as they reflect their concerns and satisfy desires (Yau & Reich, 2019) fundamentally in their relational interchange with their peer group. Nonetheless, the fact that they restrict the virtual space is the product of the training about risks and dangers associated with the network that they have received.

The informants report that they use YouTube for entertainment and to find information, which they say they cannot find in other spaces, such as school or their families, and also to solve day-to-day problems, for which they turn to the famous tutorials. The 12-15 groups report that

they prefer mobile apps such as TikTok or using videogames through games consoles or on smartphones. The 16-18 group make more specific use of networks such as Twitter to share information they regard as interesting or relevant and they use streaming services to a greater extent to watch series and films in their free time.

It is apparent that they know how to choose and select spaces and times depending on whether they want to communicate, entertain themselves, or inform themselves. As they get older, they change and vary in channel and select in a more discerning (subjective) way the ones that give them a greater or lesser benefit and the older students are more analytical with the information they share (Solé, 2019).

4.2. Perception and uses of free time

To find out how young people perceive their free time, the discussions focussed on their temporal valuation of the uses of their free time offline and online and on their self-perceived availability. Table 3 shows the total number of references coded relating to the analysis variables, as well as the comparative percentages between groups:

It was found that younger respondents (12-15) do more planned offline activities—normally agreed with their families—such as sport or tasks relating to music. They say that these spaces fundamentally provide new learning, an opportunity to relate with other adolescents of their age, and entertainment. They are also spaces for interrelating that they continue afterwards in a virtual setting on so-

TABLE 3. Coded references in availability and time perception.

Category	Groups I (12-15)		Groups II (16-18)	
	References	%	References	%
Time perception	125	52.51%	105	47.49%
Availability	63	66.03%	17	33.97%
Excess time	5	31.94%	3	68.06%
Lack of time	35	69.99%	9	30.01%
Free time	61	38.86%	91	61.14%
Offline	45	43.74%	65	56.26%
Online	18	32.05%	22	67.95%

Source: Own elaboration.

cial networks where they carry on sharing their interests by sharing information or photographs (in WhatsApp groups or on Facebook or Instagram). They spend their online time communicating with their peers. They also state that they spend time on games connected online with friends with whom they continue to interact.

In the 12-15 groups, we can see that online and offline activities alike form the core of the construction of their social identity, the part in which they seek identification and acquire commitment (Velásquez, 2007) with different groups, which continuously shape shared values and behavioural norms. In the hyperconnected digital era, this group identification and commitment is consolidated by spending time in virtual spaces through publications linked to their leisure preferences (Almansa, Fonseca, & Castillo, 2013).

The older groups of participants (16-18) said that they have free time, except in school assessment periods. Although they do carry out offline activities (sport, going out with friends), they state that they

spend a large part of their free time on online activities. The virtual part is with them in their daily life, with connectivity being vital for instantly sharing the activities they are doing, for example, through Instagram and its stories — short posts with a maximum duration of 24 hours. This need makes leisure into something interstitial, as Igarza notes (2009) because it makes daily activities fluctuate with short waiting times or movements, creating “temporal bubbles” (Fernández & Gutiérrez, 2017) in which the young person stops being in the here and now to instead be online, conditioned by the desire to exhibit and the demand to share.

They use their free time to share information — personal information and other information they regard as important — but they also say that using technology, social networks, and mobile apps allows them to disconnect. One crucial aspect that young people in this age bracket (16-18) report is that in their free time they need to “disconnect connected”. This enables them to escape from other concerns like studying, spending time with their

family, or doing other leisure activities that do not require technology, but in this disconnection they choose to be in contact with others.

They perceive that they need this time as viewing social media when they have “a bit of time” has become a “habit”, but they also mention boredom as a conditioning factor for their use — sometimes abuse, they note — of the virtual world, something that coincides with what is found in other research such as that of Morduchowicz, Marcon, Sylvestre, & Ballestrini (2012), which concludes that the internet and social media prevent boredom.

I mean, we are used to grabbing the phone to kill time when we are bored. (Part_3_GSA004_PENARANDA).

However, there is also a third argument in which adolescents state that the virtual world is “comfortable” as they can carry out multiple activities and tasks from a single space and at the same time. One example of this is the argument made by the following respondent:

I think that rather than being because of boredom, it's because you have everything there, isn't it? So, you don't have to get up to look at anything, you don't have to think that I have to go and play padel and I have to put on all the kit ... if you like padel you go to YouTube and you can watch it as much as you like all afternoon, I think it's a question of ease more than a question of boredom to be honest. (Part_2_GBAR002).

Likewise, they feel that having unused virtual time, which does not benefit them

and makes them feel like they have wasted the time:

I've thought that a lot, when you are with your phone, and you think: why? (laughter). To see people there, smiling. (Part_4_GSA002).

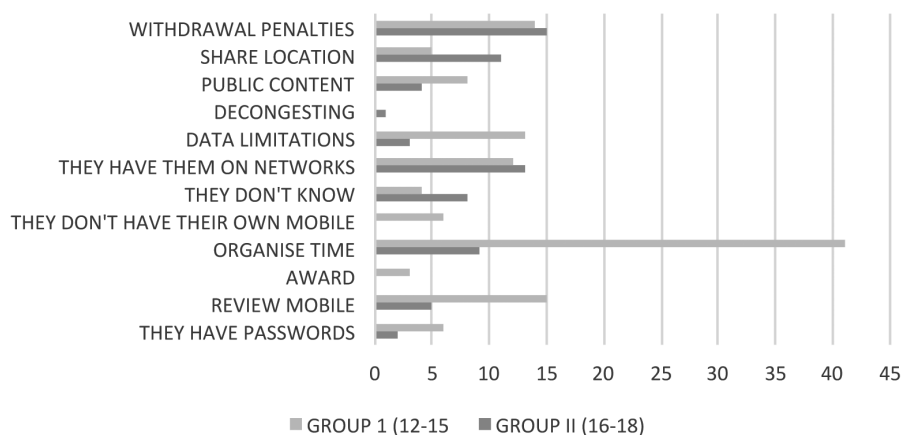
4.3. Managing free time online

To examine time management, we focussed on the external controls imposed by the respondents' families or schools, self-regulation strategies, and perception of time when online. Management of free time depends on the degree of autonomy. It is apparent that the 12-15 group depends more on parental control when deciding on what activities they want to do in their free time and on control in time management and use of technology and the internet. As the respondents' age increases, parents allow them more autonomy and decision-making capacity for managing their time. However, the young people themselves report that it is their families' lack of knowledge that results in this trust in self-management:

We were born at a time when everything uses technology and so we know how it works, our parents, for example, they don't know how Instagram works. (Part_7_GMANZ002).

The most widely used parental strategies (see Graph 3) relate to: 1) 12-15 groups: organisation of time and checking networks and apps they use on their smartphones and other devices; and 2) 16-18 groups: taking devices away when they use them in excess — the parents' subjective view — or they do not comply with their responsibilities at school or at home.

GRAPH 3. Parental strategies identified in management and use of technology.



Source: Own elaboration.

They coincide in understanding the importance of organisation of time as they state that they are not always able to control themselves and they lose the notion of how many hours they spend, but they do not agree to the same extent with their families checking their devices.

Well, I feel bad, angry, not because they have taken it off me, but because they see everything I'm doing or that I have, they read all of it. (Part_4_GPLA001).

Young people regard their virtual spaces as a private intimate space where parental control has no place, even though the information they share can be viewed by hundreds of people. Managing their information and deciding whether or not to share it belongs to them. This is what is known as *the exploration phase* in the shaping of identity (Tesouro, Palomanes, Bonachera, & Martínez, 2013) which favours the development of active and mature statuses. This requires young people to feel that they can man-

age not only times and spaces but also how they use them, even though they might sometimes make errors because of a lack of information, imprudence, or immaturity. Madden et al. (2013) call this augmented intimacy, where young people share their lives with friends and acquaintances while excluding their close family environment as they regard it as a space where only peers can intervene, a space that becomes excessively large and diffuse despite their belief in absolute control. And they manage their time so they have moments in which, through virtual spaces, they consolidate their validation and social integration, clarify their feelings, thoughts, and emotions, and test their capacity for self-expression (Morduchowicz et al., 2012).

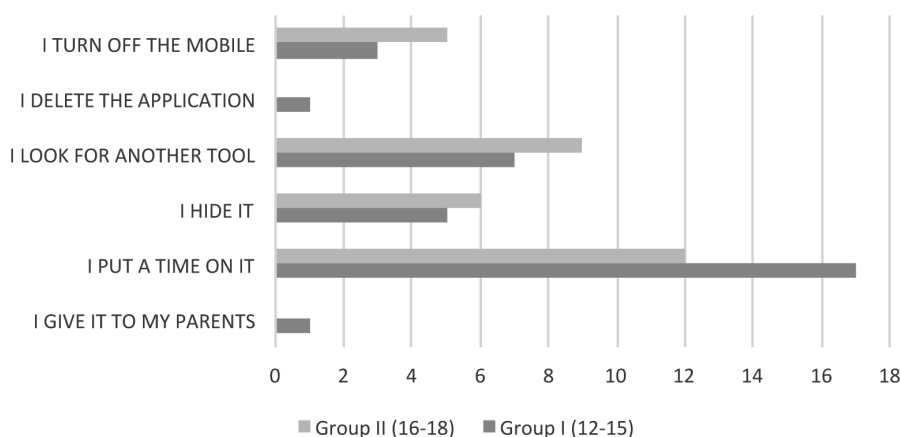
Of the 53 references to control at school recorded, a slightly higher percentage of references to the existence of restrictions is apparent in the younger groups (53.23% compared with 46.18%

from the older groups). These controls focus on not allowing students to carry devices in the school without an express request by a teacher. Management of “school free time” is determined by the rules of the school and young people report that they adapt to them. They also consider that at certain moments they prefer this external management of their time, as they recognise that:

I also think that if you always have your phone, you will be more reliant on it. And if they take it off you, it's like you are freer. Without having to have your phone here and thinking I've got a message or I'm going to do this ... It's better without your phone. (Part_4_GPLA002).

A higher proportion of coded information can be seen in the loss of concept of time in the 16-18 group compared with the 12-15 group (67.73% compared with 32.27%). Therefore, it is the older groups of respondents who report using self-regulation strategies since they are subject to less external control and have more autonomy in managing their free time (in percentage terms, they referred to this more in the discussion than the younger groups). When studying in depth the strategies proposed, we found (see Graph 4) that the strategies they use most are: setting themselves times for being online or looking for another tool and even hiding the device so that they do not have immediate access.

GRAPH 4. Self-regulation strategies identified by young people.



Source: Own elaboration.

In the *temporality dimension* category, we found that being connected causes them to lose the concept of time and this results in negative feelings as they perceive the loss of control in the use they make during this time they spend connected. Consequently, we find com-

ments from young people like the following:

Suddenly you get an alert and you think 'I'm not going to look at it' but you start thinking 'who will it be, okay, I'll look at it, I'm going to look at it'. So you look at

it and then from that person you go to stories and people have updated their stories and then I lose myself there, and then ... (Part_6_GBU002).

It's like two hours go by and you say 'well, I want more' and that's how it is all the time and I spend a whole afternoon and I'm with my phone all the time. (Part_5_GSA005).

This creates uncertainty and makes them reflect on the decisions they have taken during this time relating to gains and losses of their own time, learning, and opportunities to do other activities. It is important in the construction of young people that they ask themselves questions about good or bad management as this will enable them to take decisions based, normally, on their consequences such as low school performance.

5. Conclusions and outlook

This preliminary phase of the CONECT-ID study has found several results that support focussing pedagogical discussion on designing and encouraging quality educational interventions. Firstly, young people's identity construction forms a continuum affected by different spaces and times, both virtual and face-to-face. Adolescents report finding a micro-space of individuality-collectivity in the internet which is apparently innocuous for them and where they feel the liberty they do not always perceive in other spaces with more tangible external control. They make their free time a time for interaction, exchange, generation, and production of information which they regard as their property where

they alone set the rules of the game. And while it is true that young people need individual spaces where they can experiment and explore their abilities, virtues, and even defects, their education must provide them with tools that foster their capacity to discern, accept, value, and make decisions regarding what will bring them an adequate personal and social development, in terms of liberty, responsibility, critical thinking, autonomy, and self-management, and foster their capacity to identify things that can harm them as a consequence of a loss of autonomy and dependent and irresponsible use of technology, delegation of academic tasks and other individual and collective activities offline or confidence in channels and users that turns them into victims of deception, among other aspects. It is vital to pay attention to young people's communicative capacity to generate and share information and interact with others — whom they might or might not know — through a variety of channels and platforms. Educational agents should take this aspect into account, using this communicative potential to work on acquiring assertive and empathetic communication skills, as a foundation for establishing healthy social relationships.

Secondly, it has been shown that young people who have less parental control of their time management need stronger self-management and self-regulation mechanisms. They work with strategies of time management by trial and error, but they report that the appeal of the internet clouds their reasoning despite them being aware that they have other obligations to fulfil. Pedagogy should support

practices that allow them to go further than setting limits and show them what they can manage their time for in settings that provide them with lasting benefit beyond mere entertainment. We have found that they spend a large proportion of their time viewing profiles and stories of people who they share their lives with on social media or communication channels such as YouTube, including anonymous people and famous influencers. We should consider young people's tastes in order to foster their capacity for criticism and self-criticism. We must enable physical and virtual spaces and times where they can reflect on prosocial values that they identify in other profiles, and we should teach them that they can select content that allows them to show an optimal version of their self. Furthermore, interventions must be designed for working socio-educationally with them on establishing healthy interpersonal relationships and on putting in place social and communicative skills that enable them to have better social development. This will offer us the chance to create a body of citizens — also virtual — who are better able to put democratic values into practice.

One limitation of this study that we should note is the data collection method, as the self-reporting nature of the discussion groups could result in biases; nonetheless, this is an appropriate technique that has enabled us to approach the beliefs and opinions of the key informants, giving them the opportunity to reflect on something that is of interest for the educational community. On the other hand, we should also note that, while we could allude to the limited character of the sample, this

study is part of a preliminary phase of a longitudinal mixed study (Boczkowski, Mitchelstein, & Matassi, 2018; Fernández & Gutiérrez, 2017; Montiel & Agustina, 2019; Torres, 2017; Vannucci et al., 2020) which will enable us to continue examining in greater depth the analysis of these first results and making recommendations for educational policies and practices.

Notes

¹ "CONNECT-ID. Young people's hyperconnected identity and their time perception in digital leisure". Spanish Ministry of Science, Innovation, and Universities. Reference: PGC2018-097884-B-I00. (2019-2022). Some results also relate to the "Digital identities in hyper-connected young people: challenges for the family, social, and school context" research project. Regional Government of Castilla y Leon. Reference: SA038G19 (2018-2021). PI José Manuel Muñoz Rodríguez.

² Hierarchy chart from NVivo showing the weight of the content of the categories after analysis of the discussion in the five research dimensions of the project: digital profile, behaviour and actions, settings, time management, time perception, and critical thinking.

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The time of young people in social difficulties: Use, management, and socio-educational actions

El tiempo de los jóvenes en dificultad social: utilización, gestión y acciones socioeducativas

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Abstract:

The time and way in which one lives should be addressed from a socio-educational point of view, an essential aspect for any young person in social difficulties to be able to achieve a full life, with legitimate aspirations and opportunities. The main objective of this research was to identify how young people in social difficulties use and manage their time, drawing on the words of the professionals who are responsible for their care, guardianship, guidance, and education. We also sought to identify the socio-educational intervention actions that are being carried out in different social resources to help young people to manage their time. For this pur-

pose, a qualitative study was carried out using an open self-administered questionnaire to survey thirty professionals from the Community of Madrid, including social educators, teachers, social workers, and psychologists. The results indicate that, in the professionals' opinion, young people do not use their time adequately and, mostly, they have no control over it, mainly due to personal situations that act as conditioning factors. There are also some notable achievements in time management acquired by these young people. Finally, the professionals' testimonies suggest the use of different socio-educational intervention actions with young people to work on good habits and social values; protection,

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support, and guidance; as well as the proper management of leisure time. A line of future research opens up to study the effect of these actions on these young people's independence and social inclusion.

Keywords: social difficulty, educators, intervention, inclusion, youth, time.

Resumen:

El tiempo y la manera en que se vive requiere ser abordado desde un enfoque socioeducativo, siendo un aspecto fundamental para que cualquier joven en dificultad social logre una vida plena, con aspiraciones y oportunidades legítimas. El objetivo principal de esta investigación fue identificar cómo utilizan y gestionan su tiempo los jóvenes en situación de dificultad social a partir de las manifestaciones de los profesionales que se encargan de su cuidado, guarda, acompañamiento y educación. Igualmente, se trataron de identificar las acciones de intervención socioeducativa que se están llevando a cabo en diferentes recursos sociales para ayudarles a gestionar su tiempo. Para ello, se realizó un estudio

cualitativo en el que se utilizó un cuestionario abierto autoadministrado para encuestar a treinta profesionales de la Comunidad de Madrid, entre los que se encontraban educadores sociales, pedagogos, trabajadores sociales y psicólogos. Los resultados señalan que, en opinión de los profesionales, los jóvenes no utilizan su tiempo de manera adecuada y mayoritariamente no tienen control sobre él; principalmente por situaciones personales que actúan como factores condicionantes. También, se destacan diferentes logros adquiridos por parte de estos jóvenes en la gestión del tiempo. Finalmente, los testimonios de los profesionales apuntan a la utilización de diferentes acciones de intervención socioeducativa con los jóvenes en las que se trabajan los buenos hábitos y valores sociales; la protección, apoyo y acompañamiento; así como, la gestión adecuada del tiempo de ocio. Se abre una línea de investigación futura para estudiar el efecto de estas actuaciones en la autonomía de estos jóvenes y en su inclusión social.

Descriptores: dificultad social, educadores, intervención, inclusión, jóvenes, tiempo.

1. Introduction

Currently, in an age of liquid modernity (Bauman, 2007), where everything is quickly diluted and technology streamlines communication and actions, young people must adapt, make good use of their time, and give meaning to it. Obviously, this time is used in society and corresponds to a cultural construction in which education (Caballo, Caride, &

Meira, 2011), as well as multiple social groups (Lahire, 2007), such as family, peer groups, school institutions, the media, etc. have a specific relevance (Caride, Lorenzo, & Rodríguez, 2012). As regards the use of time, young people in social difficulties are exposed to a situation of vulnerability by several variables and risk factors (Vargas, Pérez, & Pérez-de-Gúzman, 2014; Pérez, Poza, &

Fernández, 2016) of which periods of crisis and poverty cannot be excluded (Ruiz-Román, Molina, & Alcaide 2018), which push them towards exclusion (Butterworth et al., 2017).

Young people in social difficulties need to know how to make and internalise this social construction represented by time; they have to make decisions about their use of time and they must search for and form their identity from learnings and experiences that allow them to adapt to life's rhythm (Garcés-Delgado, Santana-Vega, & Feliciano-García, 2020).

1.1. The use of time in youth

In young people's transition to adult life, there are some external factors that they cannot control but which can affect their behaviour and their use of time. We refer to the country's culture, the various public policies that permeate young people's rights, access to employment, budgets for social policies, leisure options, etc. (Dixon, 2016; Ducca-Cisneros, 2018; García-Castilla & Virseda, 2018). Some internal factors within the use of educational, social, and psychosocial time also affect them through their subjective experiences and personal circumstances (Codina, Pestana, Caride, & Caballo, 2013).

The use of time also underlies the personal aspects related to learning and training: knowing how to relate to their peers, progressively acquire values and habits, or independence, and practice of leisure activities, which leads to subjective well-being and promotes

the development of their life plan and are the result of the reconciliation between rational and emotional decision-making (Garcés-Delgado et al., 2020). This represents a balance related to intrapersonal variables that interact in their circumstances, their experiences, their learning, in the way they communicate or relate, and that allows them to choose objectives and achievements by expressing themselves in the personal, social, cultural, work, and moral spheres (Lomelí-Parga, López-Padilla, & Valenzuela-González, 2016; Pérez & Melendro, 2016; Rodríguez-Bravo, De-Juanas, & González, 2016).

The perceptual reflection of young people's experiences and the processes of social interaction with people who can influence their decision-making can affect the transition to adult life of young people in social difficulties, bearing in mind their personal needs and their life plan (Santana-Vega, Alonso-Bello, & Feliciano-García, 2018). In turn, this allows them to acquire social skills to obtain an autonomous and independent life in society (García-Castilla, De-Juanas, & Rodríguez, 2018). All this represents a positive aspect in young people with limited resources, in times of uncertainty (Maree, 2018) and in the age of remote solutions due to the linear programs that are provided by the institutions (Melendro, 2011; Ballester, Caride, Melendro, & Montserrat, 2016; Pérez et al., 2016).

1.2. Time management

Knowing how to manage time is part of young people's social development in

order to satisfy their needs and achieve certain achievements. To this end, society must generate individual and collective opportunities that provide young people in social difficulties with the appropriate temporal conditions to meet their needs and goals (Caride, 2012). As regards their requirements and those derived from the growing up process, professionals should implement negotiation and needs-detection actions to design effective education plans based on consensus (Garcés-Delgado et al., 2020). When carrying out this task, as Parrilla, Gallego, and Moriña (2010) point out, young people in social difficulties are less likely to develop their life trajectory in personal, social, emotional, and work areas than others.

Improving young people's time management also depends on the protection, assistance, and guidance of professionals and institutions that seek to clarify goals and expectations through different socio-educational actions (Ballester et al., 2016; Garcia, Quintanal, & Cuenca, 2016; Melendro, De-Juanas, & Rodríguez-Bravo, 2017; Santana-Vega et al., 2018).

1.3. Socio-educational actions

During the transition to adult life, professionals working with young people at social risk should assess how the socio-educational intervention developed during social integration programs is working. Emphasis should be placed on the "recognition of their civic rights and responsibilities, responding to their

needs and expectations, whether inherited or emerging" (Caride et al., 2012, p. 27). In this regard, Ruiz-Román, Molina, and Alcaide (2018) consider that certain guidance actions in schools and flexible coordination with other educational institutions and families lead to good outcomes in time management. On the other hand, it should be borne in mind that socially disadvantaged young people value the relationships established with professionals, the good treatment, and the help received as they learn to cope more successfully with difficulties (Melendro, 2011).

Good professional practice requires organising for mentors to work alongside education (Ruiz-Román, Calderón, & Juárez, 2017), as well as building a climate of trust necessary for young people to feel safe and motivated by time management in various areas of their daily lives and in the face of any difficulties that may arise (Alonso & Funes, 2009).

Another important aspect is the promotion of values through professional practice, establishing guidelines and behaviour patterns that help them acquire skills in their relationships with others, beliefs, and good habits to plan actions in their life plan (De-Juanas & García-Castilla, 2018).

Finally, managing leisure time is no less important for the well-being of young people. Leisure takes up a large amount of time with numerous benefits that contribute to personal growth

in its different forms (Caballo et al., 2011; Cuenca & Goytia, 2012; Arastegui & Silvestre, 2012; López-Noguero, Sarrate, & Lebrero, 2016; Anderson, 2017). In the case of young people, leisure is a subjective indicator of human development and influences the perception of their experiences, as they internalise it in their physical, psychological, cognitive, and social dimensions (Sanz, Valdemoros, Duque, & García-Castilla, 2019). Consequently, institutions and professional managers should promote the integration of measures aimed at encouraging young people to internalise a good use of free time versus the possibility of their spending their leisure time in risky situations (Valdemoros, Alonso, & Codina, 2018). One possible situation is the virtual situation, which takes place in a network, with digital leisure causing and forcing education to change for young people, families, and professionals (Valdemoros, Sanz, & Ponce de León, 2017), incorporating the technology used in leisure into daily life (Bringué, Sádaba, & Sanjurjo, 2013; Ferrar et al., 2013).

The main objective of this research was to identify how young people in social difficulties use and manage their time, drawing on the words of the professionals who are responsible for their care, guardianship, guidance, and education. We also sought to identify the socio-educational intervention actions that are being carried out by different social resources to help young people to manage their time.

2. Method

Qualitative research was carried out with the main objective of characterising the way in which young people in social difficulties use and manage time, drawing on the words of different professionals working with them. We also aimed to investigate the main socio-educational actions that are implemented to help these young people manage their time. For this purpose, we used a research approach that was exploratory, descriptive, and inductive, that did not stray from the data, and was not generalisable, although we tried to find the most representative data possible (Freebody, 2003).

We used methodological elements that allowed us to approach the lives of young people, based on the content analysis of the opinions given by the professionals. We employed the open qualitative survey technique (Jansen, 2013), a systematic method for collecting data from participants, based on Glasser and Strauss' *Grounded Theory* (1967), without any restrictions, in order to identify the relevant categories established by interpreting raw data.

2.1. Participants

The fieldwork took place in the first three months of 2020. Participants were selected from the population of professionals from the Community of Madrid working in socio-educational intervention with young people in social difficulties. To begin with intentional sampling was followed, based on the identification and selection of key individuals because of their condition, experience, and re-

sponsibility to achieve maximum data representativeness (Torres & Perera, 2009). Initially, ten participants were recruited and seeking some heterogeneity sought in their professional profiles. However, to cover all the existing relevant varieties of the phenomenon studied, a second group of participants was recruited out using chain or snowball sampling in which key respondents recruited the next participants, and these recruited the next ones, and so on, to achieve sufficient saturation, but only recruiting professionals who had at least three years of experience.

A final selection was made of thirty participants, ten men (33.3%) and twenty women (66.6%) who had an average professional experience of twelve years and four

months. Eight of these participants worked professionally in residential care resources (26.6%); eighteen in youth centers and other resources linked to socio-educational action with young people (60.1%); and four (13.3%) in social services targeting young people in the local area. These resources were publicly and privately owned. In terms of their prior education, the vast majority of participants had university degrees (93.3%) and presented diverse professional profiles: education and/or youth specialists, social educators, social workers, teachers, and psychologists (see Table 1).

Finally, each of the professional categories included one participant with responsibilities in human resources management, coordination, and/or management activities.

TABLE 1. Characteristics of the Participants.

Professional profile	Participants	Experience (years)	Training received	
Education specialists	4 (13.3 %)	Min. 3 Max. 10	Advanced training in education	2
			Undergraduate or comparable studies	2
Social educators	11 (36.7 %)	Min. 4 Max. 19	Undergraduate or comparable studies	7
			Master's Studies	4
Teachers	4 (13.3 %)	Min.5 Max. 15	Undergraduate or comparable studies	2
			Master's Studies	1
			PhD studies	1
Psychologists	3 (10 %)	Min. 9 Max. 35	Undergraduate or comparable studies	3
Social workers	8 (26.7 %)	Min. 3 Max. 29	Undergraduate or comparable studies	7
			PhD	1

Source: Own elaboration.

2.2. Means and procedure

A self-administered open questionnaire prepared *ad hoc* was sent via e-mail. This is useful for asynchronous data collection, where the presence of the researcher is not necessarily important (Bryman, 2012; Arias & Alvarado, 2015). This questionnaire was provided to participants along with information on the objectives of the study, ensuring confidentiality and anonymity and meeting the ethical criteria of the Helsinki Declaration (World Medical Association, 2018).

This methodology is considered a relevant model for conducting of this research as it is presented as an open and flexible proposal that collects responses on an initially little researched problem, through rapid distribution. It is also a growing trend because it reduces costs, minimises order effects, and allows a decrease in social desirability by not intervening in the participant's thought process. It also permits participants, from a distance, to address the topics that they perceive as related to the questions asked (Fricker & Schonlau, 2002; Díaz de Rada, 2012; Sarasa, 2015).

We collected sociodemographic data that were considered appropriate for the investigation and that allowed us to characterise the sample. In addition, general descriptive questions were proposed in an introduction that sought to evoke ideas that would incite the narration of events, experiences, and personal beliefs about the way in which young people in social difficulties use and manage time, in order to create the questions, docu-

ments were reviewed so as to orient the content of the questionnaire towards the research objectives (García-Ferrando, Ibáñez, & Alvira, 1986). The questionnaire was reviewed by various individuals collaborating in the investigation process, following the intersubjective verification criterion (Pérez, 1994). The questions were clearly and concisely drafted and organised according to a funnel logic; namely:

1. Do you think that young people use their time appropriately to achieve clear medium- or long-term goals that will enable them to confidently face the present and future challenges of life?
2. Do you think that young people can recognise the important and urgent things that require more dedication in order to be accomplished successfully?
3. What do you do and/or what actions are carried out by your institution to help them manage time?

The data obtained were systematically analysed following a process of downstream encoding information units by differentiating a descriptive coding level and an axial coding level (Jansen, 2013). These levels identified a system of codes and subcodes corresponding to the purposes of the study and that served to analyse the content of the questionnaires. After validation by adjusting, integrating, creating and restructuring the categories, we obtained a system composed of three large codes and seven subcodes (see Table 2).

TABLE 2. Codes and subcodes derived from data analysis.

Codes	Subcodes
Using time to prepare for life's challenges. It alludes to the difficulties and internal and external factors, which condition the use of young people's time to confidently face present and future life challenges.	External factors: problematic situations and social resistance that influence how young people use time to prepare for life's challenges. It refers to public policies and resources to support the social fabric of young people, as well as society's projection of young people.
	Internal factors: personal situations of the young people themselves that condition their use of time. Related to their social culture, their thoughts, habits, and beliefs that affect how they dedicate their time and establish priorities.
Time management Observations about young people's needs and accomplishments in managing their time, recognising priorities and demands.	Needs: the things that they require to be able to manage their time in the best possible way.
	Achievements: acquired habits, perceptions, and positive assessments about what young people do well to manage their time.
Actions to help young people manage their time. Socio-educational initiatives and actions that are carried out using social resources and that are implemented by the professionals surveyed.	Good habits and values: actions that professionals carry out with young people to promote, plan, and organise time. Having healthy habits, values, study habits, non-formal learning through peer support, etc.
	Protection, support, and guidance: intervention actions to support and guide young people in time management. It also includes all the statements about protecting these young people and increasing their resilience.
	Leisure time: actions that are taken to help young people healthily manage leisure time and ensure their well-being.

Source: Own elaboration.

2.3. Information analysis and processing

For data analysis, we used the MAX-QDA Analytics Pro 2020 software, version 20.0.8 for Mac OS. Following Kuckartz and Rädiker's guidelines (2019), the first codes were obtained through inductive reasoning based on the open encoding of the segments or units of information. Successive encodings found relationships between the analysis codes, refined their names, and con-

structed the grounded theory. The Code Display tool *MaxMapas* was used to create a graphic representation of these encodings.

2.4. Concordance between coders in the investigation

To ensure the rigor of the study and the stability of the data, we calculated the reliability of the category system used to analyse the degree of agreement

between coders. There were 6 independent coders, experts in the subject and external to the investigation. With the information provided by the coders, Fleiss' Kappa, was used to calculate the concordance coefficients using the computer program Excel for Office 365 and the Real Statistic add-in. The result of Fleiss' Kappa coefficient was $k = .743$, which can be interpreted as a high concordance rate (Fleiss, 1981). This implies a high — almost excellent — degree of agreement between coders, a shared identification of the codes of the same units of information.

3. Results and discussion

The overall results of the study suggest that the participants identify more conditioning factors (41.3%) than needs and achievements (20.1%) and than socio-educational actions (38.6%) to intervene with young people and ensure appropriate time management so as to confidently cope with their transition to adult life (see Table 3). One of the most significant interpretations of these results refers to the number of difficulties that participants attribute to internal factors of the young people themselves (73%), compared to external factors (27%). This finding coincides with the work of Garcés-Delgado et al. (2020) who, in their study on expectations, self-imposed goals, reasoning, conflicting social behaviour, portraying a mistaken social role, and impulsivity, found that young people's life plans are the result of reconciliation between rational and emotional decision-making. They also showed that

decision-making is influenced by the interpersonal and intrapersonal characteristics of each individual: emotions, feelings, temperament, interests, etc.

In the same vein, our findings seem to coincide with other studies that point out the importance of the identity and skills of young people finding it difficult to achieve social inclusion and life satisfaction (Ballester et al., 2016; González-García, et al., 2017; Martín, González, Chirino, & Castro, 2020).

As for the professionals' comments about the young people's achievements in managing time and the things they require, we find some degree of balance that is marginally in favour of the number about comments of achievements (52.8%) versus needs (47.2%). These findings do not coincide with other works indicating that most of these young people have not stopped to think about what they will do in the future, and their life plans are confusing, regardless of the acquisition of skills for independent living offered to them via the resources specialising in independence (Ruiz-Román et al., 2018; Fernández & Cid, 2018).

More comments were found about actions in which young people are intended to acquire and develop good habits and values to improve time management and independence (46.4%) compared to those related to providing protection, support, and guidance (39.1%) and the promotion and management of leisure time to improve well-being (14.5%).

TABLE 3. Number of mentions and percentages of time use, time management, and actions to help young people (frequency of comments = n; percentages of comments = %).

Codes	Subcodes	n	% relative to the code	% relative to the overall nr. of comments
Use of time	External factors influencing time usage	20	27	11.2
	Internal factors influencing time usage	54	73	30.2
Total		74		41.3
Time management	Needs to improve time management	17	47.2	9.5
	Achievements in time management	19	52.8	10.6
	Total	36		20.1
Actions to help young people	Good habits and values	32	46.4	17.8
	Protection, support, and guidance	27	39.1	15.1
	Leisure time	10	14.5	5.6
	Total	69		38.6
Total		179	100	

Source: Own elaboration.

However, Graph 1 presents a model of the data processed using the codes and subcodes system, as well as the relationships that were established between them.

A more detailed analysis of the comments sheds light on participants' responses about external difficulties in young people's use of time. We note that there is a social and family environment that does not promote adequate use of time:

The social environment does not favour continued effort. It offers an unlikely reward. (Social worker. C24.4-4).

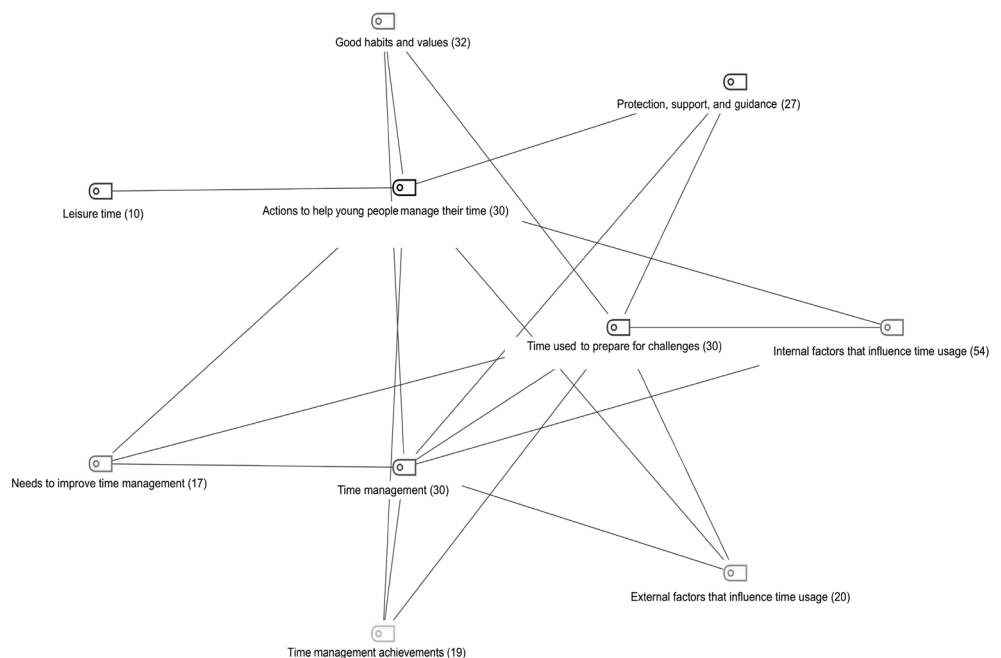
The families of these young people do not teach them to value education. (Teacher. C10.4-4).

What stigmatises these children the most is not the social exclusion to which they are subjected but the exclusion they suffer from their peer group ... (Social Educator. C22.7-7).

Many professionals defend the idea that the lack of resources is a major barrier to the way time is used:

... our country has no public policies to support the social fabric of young people or public resources that facilitate access to creative free time that would favour their skills. (Social worker. C12.4-4).

GRAPH 1. Code-subcode relationship model: time usage, time management, and actions to help young people.



Source: Own elaboration.

They don't spend their time properly, especially because of a lack of options and resources that allow them to optimise their efforts and capabilities. (Teacher. C9.4-4).

... it is conditioned by the human resources in the center where they live. (Social educator. C22.4-4).

However, they are aware that many of the measures taken with young people do not help them to be more independent but quite the opposite, sometimes they contribute to making them more dependent:

...the lives of these young people are at the mercy of their educators, they are often not asked about their destiny or given all the information, so they are accustomed

to being totally dependent on the system ... (Social educator. C18.4-4).

... the overprotective measures to which they are subjected, some of them for their whole lives, have only served to help these children learn to evade their most immediate responsibilities. (Social worker. C28.5-5).

Some difficulties can be attributed to internal factors. The professionals believe that these young people tend to focus on the more immediate aspects without thinking about the future:

... I think they have a hard time thinking at the mid- and long-term, in which the lack of intrinsic motivation and helplessness they have learned play an important role. (Social educator. C4.4-4).

... the urgent thing is the present and their immediate well-being. (Social worker. C21.4-4).

... I think they tend to focus on the here and now and are often unable to initiate actions within a more complex strategy that allows them to plan how they will achieve of mid- or long-term goals ... (Teacher. C14.4-4).

The professionals think that young people's use of more immediate time limits is due to indolence and the performance of meaningless actions:

... there is a clear tendency to laziness and/or to seek easy solutions that satisfy them immediately. (Psychologist. C27.4-4).

... they do nothing profitable with their lives, they dedicate themselves to empty, meaningless leisure time. They are resigned to, and even comfortable with, a life with no aspirations or goals ... (Social worker. C21.4-4).

These findings are consistent with those of Biolcati, Mancini, and Trombini (2017), in which they showed that many young people have a tendency to indolence and boredom and that this, in turn, may be related to the onset of risky behaviours.

In addition, there are maturity issues that serve as an argument about how young people use their time:

... they create short-term expectations without thinking about the consequences of it in the mid-long term, or what may affect them in their future. In the end, it is a process of brain maturation in which

the area that governs fear is still in the process of maturation and more risks are taken ... (Social educator. C6.4-4).

Other responses point to the implementation of different protection mechanisms among these young people whose characteristics may make them seem stronger but actually reflect a greater vulnerability:

... they are aware of the problematic nature and urgency of some situations, but in many cases, they ignore them, posing as tough and courageous people, who are not affected by anything, even if they feel like they are falling apart inside, because they have to maintain their image before others. (Social educator. C6.5-5).

Many young people try to forget some of their past so they can present an image in a more adult present ... (Social worker. C23.4-4).

Concerning their needs to improve time management, the professionals point to the lack of staff and acknowledge that these young people require greater support. This is observed in the following quotations:

... they need time and personal and professional support to understand that they are the ones who can change their destiny and that they have to face the same challenges that all people must face in the transition to adult life. (Psychologist. C27.4-4).

... actually, what they need is more comprehensive support along with a more specific socio-educational intervention ... (Social educator. C28.4-4).

With regard to time management achievements, the professionals acknowledge some habits and qualities that young people have that help them manage their time more competently:

Some young people can prioritise their education, so it is more aimed at finding jobs that allow them to maintain a minimum income, but these are few. (Psychologist. C26.5-5).

... young people know those problems or needs that require greater urgency. They have experienced difficult situations and, despite having plans for their future, they change them immediately in the face of the needs and urgencies that they encounter. (Social educator. C20.5-5).

Concerning the actions that are implemented by social resources to help them manage their time, the comments on good habits and values, provide us with some different proposals:

The project I work in has held group and individual time management workshops; we work with each person on their day-to-day life, teaching them to identify their priorities which enables them to organise themselves better. (Social worker. C15.7-7).

The professionals also comment on actions related to the establishment of schedules and routines:

The times and routines within the frameworks of protection or social difficulty are very organised and disciplined. They are based on the acquisition of skills and common integration values. (Social worker. C19.4-4).

Setting schedules and routines with them is essential, as well as establishing a list of goals and priorities. (Educational technician. C16.7-7).

In this quotation, we find an observation that can help us understand one of the main reasons routines are addressed:

Knowing what is going to happen at each moment of the day, seeing that this takes place successively, has a strong impact on developing their ability to think about the future. This means that the uncertainty surrounding their future begins to crumble and, slowly, they build enough confidence to set mid- and long-term goals and the motivation to manage time to achieve them. Compliance with this routine via schedules, forms, and actions must be rewarded under a system of privileges achievable in the short, mid and long term, considering that in the short term, there is no room for immediacy. (Social Educator. C22.7-7).

They mention essential aspects for the future, for example, all those related to incorporating new jobs:

The programs managed by my work emphasise job incorporation or job readiness, which remains an important step towards independence. (Psychologist. C27.7-7).

We also find references to work that addresses beneficial and healthy values:

... I try to encourage them to take on family responsibilities, to get involved in helping their parents, grandparents ... (Social worker. C24.7-7).

I promote coexistence, facilitating strategies for conflict resolution and impro-

ving relationships with others. (Teacher. C14.7-7).

... we address healthy habits both on a personal level, for example, measures such as hygiene and order, and on an academic level, trying to create a study space. (Social educator. C28.7-7).

In relation to implementing protection, support, and guidance actions for young people, the professionals state:

... we have different programs for young people that facilitate and guide them in flexible and functional time management. (Social worker. C17.7-7).

... we consider it very important and of great impact to have a presence on the street and in the spaces where young people freely decide to go, to carry out socio-educational guidance in all the processes and procedures required to standardise and transition to adult life. (Teacher. C9.7-7).

This support may come from the peer group:

... we take advantage of a related resource such as Youth Information classmates to respond to and guide them through all the concerns they had forgotten. (Education specialist. C1.7-7).

They establish other actions that can contribute to increasing young people's independence and capacity for resilience:

We do many activities in order to reflect on their individual futures, on their future families, what they would like to achieve, as well as how they would like to live, and

that they have to work to achieve it. These activities encourage them to reflect and see themselves in different situations from those that are already "written" in their future, they have short-term results. (Teacher. C10.7-7).

Finally, there is great interest in working on leisure time and healthy leisure activities:

... the educational team must present a wide range of community activities and recreational resources and have a great capacity for persuasion so that young people decide to spend their leisure time on them. (Social educator. C22.7-7).

... we work with young people at risk and offer them alternative and healthy leisure activities that can inspire genuine interest and motivation, starting with their tastes and concerns. (Psychologist. C8.7-7).

Leisure activities also seem to be a good resource with which to initiate other interventions that contribute to the transition to a positive adult life (Anderson, 2017):

... in most cases, the way to hook these young people for further intervention is by encouraging some recreational or leisure activities within the home itself (films, games, and workshops) ... (Social worker. C28.7-7).

Through leisure, we generate a relationship of trust with them, so that we can find out their concerns, needs, etc. From there, we try to instill in them a self-critical spirit and, above all, to remove them from that "reality" that they have

created in which anything goes ... (Educational technician. C1.7-7).

4. Conclusions

This study aimed to explore in depth the observations of a group of professionals from the Community of Madrid who work in different resources with young people in social difficulties, to characterise the youngsters' use and management of time, as well as which socio-educational actions are implemented during the intervention.

It is concluded that the professionals' opinions and the number of comments made underline a large number of difficulties that young people have with appropriate time usage, either because of internal or external factors. These difficulties, coupled with the needs that were identified, leave little margin for the achievements that young people have acquired. However, these habits and abilities can serve as an anchor point for various interventions with young people. This is supported by the large number of comments coded as socio-educational actions to help young people manage their time, which are identified in the professionals' responses as consequences of the needs and difficulties. The focus of intervention should be mainly placed on direct interventions with young people and their internal factors, besides working with the environment. However, external factors should not be ignored. All this suggests the need for coherent and coordinated interventions on young people that make their time an operational axis

around which to introduce measures and resources.

In this sense, the second purpose of the study was to characterise the socio-educational actions that are carried out using the various resources. Three major areas of action have been identified to enhance time management among young people: 1) the most cited actions aimed at promoting good habits and values; 2) actions that protect, support and guide young people and enhance their resilience; and, 3) actions aimed at helping them manage their leisure time. The measures the professionals propose confirm and complement the information about some difficulties they had provided and the need to overcome them through concrete actions.

This work offers a comprehensive and extensive analysis of the time of young people in social difficulties, although it has some limitations. One of the main ones is the size and selection of the sample. However, we tried to achieve the maximum possible representativeness by using key informants, and participants who had many years of professional experience. As a prospective action, the perception that young people in social difficulties have of their time usage and management could be addressed. This would counter the professionals' perception and would allow for a broader, more global, and complex view of the problem. Future work could also be undertaken to contrast how young people in social difficulties use and manage their time compared to other young people.

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Studies

Catherine L'Ecuyer, & José Ignacio Murillo

Montessori's teleological approach to education and its implications

Lidia E. Santana-Vega, Arminda Suárez-Perdomo, & Luis Feliciano-García

Inquiry-based learning in the university context: A systematic review

Montessori's teleological approach to education and its implications

El enfoque teleológico de la educación Montessori y sus implicaciones

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Abstract:

Teleology is a fundamental aspect of Montessori education. Understanding its implications helps us appreciate Montessori's deep affinity with Aristotelian thought and how her pedagogy differs from the New Education movement inspired by Jean-Jacques Rousseau. The teleological approach has several implications in education: for example, when it comes to understanding concepts such as *meaningful learning*, *active learning*, *learning stimuli*, and *progress*. To understand the teleological approach in the Montessori method, this article discusses some of its fundamental pillars, such as the *prepared environment*, *control of error*, the *absorbent mind*, *sustained attention*, the *development of personality*, *purposeful repetition*, *perfective activity*, the *joy of learning* and the *rational nature's inclination towards its end*.

According to Montessori, human activity is naturally oriented towards an end and is ordered by reason. The end of education is the child himself since education consists in perfecting the agent, bringing his potential into action. The child's eagerness to develop his personality occurs through the *spontaneous activity* of his absorbent mind and through purposeful repetition, which generates positive habits. The absorbent character of his mind urges him to know, absorbing his surrounding environment. Hence, the prepared environment and control of error are crucial. Perfective activity, performed with the right and strictly necessary amount of stimuli, helps the child find rest in meaningful voluntary activities done without obstacles. The resulting pleasure should not be understood as a mere *experience*; it should rather be seen in relation to a natural activity directed towards its end.

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Keywords: teleological approach, control of error, habit, joy of learning, Montessori education, perfective activity, active learning, meaningful learning.

Resumen:

La teleología es un elemento central de la educación Montessori. Entender las implicaciones del enfoque teleológico en Montessori ayuda a entender sus diferencias con el movimiento de la Educación Nueva, inspirado en Jean-Jacques Rousseau, así como su profunda afinidad con el pensamiento aristotélico. El enfoque teleológico tiene varias implicaciones en la educación, como, por ejemplo, en lo que se refiere a los conceptos de *aprendizaje significativo*, de *aprendizaje activo*, de *estímulos para el aprendizaje* y de *progreso*. Para entender el enfoque teleológico en Montessori, hablaremos de algunos de los pilares fundamentales de esa pedagogía, como, por ejemplo, el *ambiente preparado*, el *control del error*, la *mente absorbente*, la *atención sostenida*, el *desarrollo de la personalidad*, la *repetición con propósito*, la *actividad perfecta*, el *placer de aprender* y la

inclinación de la naturaleza racional hacia su fin.

Para Montessori, la actividad humana está naturalmente orientada hacia un fin y ordenada por la razón. El fin de la educación es el niño mismo, ya que esta consiste en perfeccionar al agente, llevando al acto en el niño lo que en él solo está en potencia. El afán del niño por edificar su personalidad ocurre a través de la actividad espontánea de su mente absorbente y de la repetición con propósito, que genera hábitos positivos. El carácter absorbente de la mente del niño le urge a conocer, empapándose de su entorno. De ahí que el ambiente preparado y el control del error resulten cruciales. La actividad perfecta, realizada con la cantidad justa y necesaria de estímulos, hace que el niño encuentre descanso en los actos voluntarios realizados con sentido y sin trabas. El placer que resulta no se entiende como mera *experiencia*, sino en relación con una actividad natural encaminada hacia su fin.

Descriptores: teleología, pedagogía del error, hábito, placer de aprender, educación Montessori, actividad perfecta, aprendizaje activo, aprendizaje significativo.

1. Introduction

The concept of *active pedagogy* derives from the New Education movement which developed at the beginning of the 20th century. Numerous references to it can be found in the work of Adolphe Ferrière (1879-1960), one of the leading proponents of this movement. Ferrière contrasted a model of schooling in which students were seated and immobile and were instructed

through listening with the model of the active school (*l'École active*), in which the student learned by working (Ferrière, 1922). Dewey, the figurehead of progressive education in the United States, also associated direct instruction with passivity and activity, or *learning by doing* (Dewey & Dewey, 1915, p. 70), with *active learning*: "Education that associates learning with doing will replace the passive educa-

tion of imparting the learning of others” (Dewey & Dewey, 1915, p. 163).

Hence, the importance the *New Schools* (*Écoles nouvelles*) of the 20th century attributed to open-air activities, working outdoors, in-class experiments, etc. (Ferrière, 1911a, 1911b), as well as the significant role experience and learning by doing acquired in the US progressive school. Some educational practices of the 21st century were also inspired by this, such as for example the flipped classroom, interest learning centres, project-based work, the abolition of school subjects, and cooperative work.

For proponents of the New Education, silence and immobility are usually associated with the passivity typical of the *old* school, while movement, experience, and action are associated with the only true learning. However, while it is true that proponents of the New Education insist on the notion of *action* in contrast to *passive reception*, it is not apparent, as Avanzini notes (1995), that *action* is such a clear concept, especially in the context of learning. Indeed, it is possible to move or repeat a movement mechanically and not with full volition. There can also be a lack of volition in a setting that is undisciplined or features disorganised activity. Furthermore, it is important to ask whether volition fits into ordered and disciplined activity. Are children not able to learn *for themselves* in silence and without moving in a context of direct instruction? Does a child who is being constantly entertained and distracted learn actively? This dichotomy appears to be superficial, as what makes children learn is not mere external movement (which can be me-

chanical and not be done with full volition), but rather the rational spontaneity with which they move in a particular direction and with a specific end.

Montessori's ideas break with the framework of the New Education (L'Ecuyer, 2020) because her pedagogy of spontaneous movement has a particularly teleological focus. The activities her pedagogy proposes are designed in advance, the materials control error, and they develop the child's capacity for self-inhibition. Repetition is perfective and is directed towards a specific end that gives the learning meaning. This *perfective activity* helps construct the child's personality. For Montessori, it is not enough to react to a pupil's psychological need. Instead there must be an intelligent purpose, a previously defined systematic plan in accordance with the child's nature.

In this article, we will explain why teleology is a central differentiator between Montessori education and the New Education movement inspired by Rousseau. We will also consider some affinities between Montessorian and Aristotelian thought. Consequently, this article is arranged around the following themes:

1. Teleology in Montessori education.
2. Meaningful learning.
3. Purposeful activity: A prepared environment and the pedagogy of error.
4. The absorbent mind and development of the personality.

5. Purposeful repetition and perfective activity.
6. Pleasure and the rational nature's inclination towards its end.
7. Simplicity: The right and strictly necessary amount of stimuli.
8. The teleological focus on progress in Montessori.

2. Teleology in Montessori education

Montessori often refers in her writings to the notions of nature and *Horme* (*impulse*) in relation to an end. In her opinion, human activity is naturally directed towards an end ordered by reason. The end of education is not external to the child and does not depend on the teacher. Nor does it originate arbitrarily or capriciously from the child; instead it is embedded in his inner nature. We could even say that, for Montessori, education's end is the child himself, as it involves perfecting the agent, taking what is only potential in the child and actualising it. One author has noted the similarity between this line of thinking and Aristotelian teleology:

Montessori frequently says the business of a child is to become a man. As the principle of act is paramount in Aristotle, the principle of movement is also paramount in Montessori; movement is the child's way of becoming what he is becoming. To thwart a child's movement is to thwart his *entelechy*. (Stoops, 1987, p. 3)

The teleological concept of nature is fundamental in Aristotelian science and philosophy: "Further, the actuality [*entelecheia*] of whatever is potential is identical with its formulable essence. It is manifest that the soul is also the final cause of its body. For Nature, like mind, always does whatever it does for the sake of something, which something is its end" (Aristotle, 1931, II, 4, 415b14-15).

In her writings, Montessori reiterates Aristotle's concept of *entelechy* and, drawing on Percy Nunn (then president of London's Aristotelian Society), calls it the *hormic process*. She defines the process as a *vital force* which drives the child to act, consciously or unconsciously, towards its end: "As the being develops, it perfects itself and overcomes every obstacle that it finds on its way. A vital force is active in the individual and leads it towards its own evolution. This force has been called *Horme*" (Montessori, 1949, p. 121).

This description of *Horme*, *entelechy*, and the *hormic process* has close relationships with some theses present in various vitalist theories. Examples include Bergson's *élan vital* (vital impulse) (2013) or Hans Driesch's *entelechy* (1908). In contrast with the classical notion of inclination that is oriented to an end, in vitalist proposals the modern notion of force, where that orientation is not so clear, is more present. This force is different from the ones studied by physics, which act externally on bodies, as it animates beings from within. Although Montessori is immersed in this cultural environment, her notion of *Horme* explicitly refers to the forces of na-

ture, purpose, and perfection, which relate her theses to those of Aristotle.

Teleology helps us understand what Montessori means by *perfection of movement*. For her, the perfection of animals' movement is given by nature (Montessori, 1949, p. 205). This idea is in line with what Aristotle said about animals in *On the Soul*: "To that something [the end] corresponds in the case of animals the soul and in this it follows the order of nature" (Aristotle, 1931, II, 4, 415b16-17).

Movement distinguishes animate beings from inanimate ones. In animals, this movement is not random; it is shaped by nature.

Movement is what distinguishes life from inanimate things. Life, however, does not move in a haphazard fashion; it moves with a purpose and according to laws. [...] Nature gives a useful purpose to each living being. Each individual has its own characteristic movements with its own fixed purpose. The creation of the world is a harmonious co-ordination of all these activities with a set purpose. (Montessori, 1949, p. 208)

In humans, Aristotle affirms that this movement is guided by reason (Aristotle, 1952a). For Montessori, the *absorbent mind* found in children is also based on desire, the inner force that drives them to acquire knowledge.

The *absorbent mind* in Montessori is similar to the idea with which Aristotle begins his *Metaphysics*: "All men by nature desire to know" (Aristotle, 1908, I, 1, 980a21). This desire to know is intrinsic to human nature. For Aristotle and Montes-

sori alike, knowledge is a vital act, and an activity only makes sense insofar as it is exercised with a view to the ends of one's own nature.

3. Meaningful learning

One accepted expression today in the field of education is *meaningful learning*. The *meaning* of learning refers to the need for a *reason why* in students' educational actions. But what can the *reason why* of the educational action involve if the learner is fundamentally passive? And what does the *meaning* of learning comprise for the New Education if an activity does not necessarily have to be directed towards an end?

According to a more behaviourist view of the learner, the meaning pupils give to what they learn is of little or no importance. The reward students receive is what determines their behaviour. The teacher might have the end in mind, but individual students do not share it or internalise it because they are not given the opportunity to be the protagonists of their learning. The learner is passive and does not actively process the information received. There is no meaning, but merely the accumulation of disconnected pieces of information; repetition is meaningless and mechanical (L'Ecuyer, 2014).

In *The Roots of Romanticism* (Berlin, 1999), Isaiah Berlin, a historian of ideas who was a professor at the University of Oxford, explains that Romanticism inspired by Rousseau is characterised by a trace of a sort of nostalgia caused by being unable to attain one's end, simply because

this end does not exist, or it is not known whether it exists (Berlin, 1999). For Rousseau, who inspired the New Education, meaning fundamentally depends on what is *felt*. There is no objective end in the world or in human activity.

Berlin explains that, for Romanticism, there are no natural ends that direct our actions and no set of facts to which we must submit ourselves. According to him, this is because of two characteristics of Romanticism: the will is indomitable and there is no structure of things.

[For Romanticism] not knowledge of values, but their creation, is what men achieve. You create values, you create goals, you create ends, and in the end you create your own vision of the universe. ... There is no copying, there is no adaptation, there is no learning of the rules, there is no external check, there is no structure which you understand and adapt yourself to before you can proceed. (Berlin, 1999, p. 119)

The concept of the *indomitable will* has little common ground with the importance Montessori places on inner discipline. And it is no surprise that the questions of discipline and effort are two of the main points of divergence between Montessori and the New Education movement. This concept is also at odds with the importance Montessori attributes to intelligence, which can know reality before it orders movement and the will. For Montessori, we cannot desire what we do not know.

[F]rom birth itself the most important side of life in man is the psychic life, not movement, because movements must be

created following the guide and dictates of the psychic life.

This also shows the greatest difference there is between men and the animals. Animals merely have to obey the instincts of their behaviour. Their psychic life is limited to that. In man there is another fact: the creation of human intelligence. (Montessori, 1949, pp. 111-113).

For Romanticism, Berlin says, “there is no pattern to which you must adapt yourself. There is only, if not the flow, the endless self-creativity of the universe” (Berlin, 1999, p. 119). Therefore, meaning fundamentally depends on the subject and on what he or she *feels*. Ferrière described the *New Schools* (*les Écoles nouvelles*) as places where the child’s moral judgement “springs forth not from his reason but from his feelings” (Ferrière, 1911a, p. 620), a clear idea in Rousseau, who said that “our true masters are experience and sentiment” (Rousseau, 2010, p. 325).

Consequently, for the New Education, learning is built on the foundation of what is relevant for each individual. Structure and organisation are seen as being unnecessary, or even an obstacle to the child’s productive imagination and creative freedom. For this reason, activities should not be planned with a specific end in view.

4. An activity with purpose: A prepared environment and the pedagogy of error

What makes learning *meaningful* in Montessori education?

On the one hand, Montessori distances herself from the mechanistic vision of education that proposes merely external discipline based on immobility, which lacks an end for the child:

To-day we hold the pupils in school, restricted by those instruments so degrading to body and spirit, the desk—and material prizes and punishments. Our aim in all this is to reduce them to the discipline of immobility and silence,—to lead them,—where? Far too often toward no definite end. (Montessori, 1912, p. 26)

On the other hand, the internal and active discipline she proposes has teleological implications, as she explains in one of the two articles she wrote for *Pour l'Ère nouvelle*:

The child likes to move because nature obliges him to move; preventing this movement impedes his development and makes his mission of growing in a healthy way difficult. Our duty is not to prevent this movement, but to guide the natural development of the voluntary movement towards movements that have a goal. ... Obeying laws is not just a duty but also a vital necessity. ... [I]n place of external discipline—the only form traditional schools know how to use, the starting point without which they would not know how to teach anything—ours is an inner, natural discipline, the consequence and end point of teaching. (Montessori, 1927, pp. 111-112)

One of the central features of the Montessori method is that the children themselves do not choose the ends of the activities they perform. And in preschool, they do not even choose the means for achieving these ends, as the material is designed

in advance. Montessori emphasises the importance of what she calls the *prepared environment*. This must be designed in accordance with the child's nature which bears the imprint of his ends within itself. Specifically, Montessori education arrives at this design on the basis of the observation of children's *sensitive periods*, periods when nature predisposes children to learn particular things such as, for example, movement, language, order, etc. According to Montessori, *spontaneous activity* arises from children's irresistible desire to learn which corresponds to each of these sensitive periods. The teacher's role can only be understood within this logic, and Montessori summarises this mission in this phrase: "Hence he only is good who helps creation to achieve its ends" (Montessori, 1917, p. 304). Therefore, all Montessori material, as well as the teacher's actions, is aimed, through *control of error*, at a previously established end: "To make the process one of self-education, it is not enough that the stimulus should call forth activity, it must also direct it. The child should not only persist for a long time in an exercise; he must persist without making mistakes" (Montessori, 1917, p. 75).

This focus contrasts radically with the vision of some pedagogues who believe that pupils should choose their own educational ends and who criticise the Montessori method for not allowing this: "[In the Montessori Method,] there is no freedom allowed the child to create. He is free to choose which apparatus he will use, but never to choose his own ends, never to bend a material to his own plans" (Dewey & Dewey, 1915, pp. 157-158).

For Dewey, experience or activity is, in itself, what inspires learning in the student, independently of the end of the activity. Hence his idea of what is now known as *learning by doing* (Dewey & Dewey, 1915, p. 70).

Although Montessori advocated learning through spontaneous activity (which emerges in each sensitive period), for her it is not enough for material to encourage activity without a purpose. Hence she even criticises the New Education, describing it as a revolution that aspires to “disorder and ignorance” (Montessori, 2007b, p. 10).

Montessori defends spontaneous activity, but for reasons that the supporters of active pedagogy do not hold. The spontaneity she defends is not that of the Romantics; it is the spontaneity of a rational nature that acts freely, directed towards an end provided by nature.

Accordingly, the pedagogy of error in Montessori sets a limit on pedagogical activism whose end is movement and experience *per se*. For Montessori, activity must lead the child to a specific end which is found *in the child's nature*, not in the activity or the material.

Montessori's pedagogy of error has teleological implications, because it is closely related to the ends of education. Error is the essential friend that makes it possible to advance along the path of truth and of perfective activity, through *repetition*.

Let us consider error itself. It is necessary to admit that we all make errors; it is

a reality of life, so that admission in itself is a great step in our progress. If we are to walk on the path of truth and reality, we must admit that we all make mistakes or else we should be perfect. ... If we set out on the path towards perfection, we must look carefully at error, because perfection will come by correcting it. (Montessori, 1949, p. 266).

5. The absorbent mind and development of the personality

Children's absorbent minds enable them to take ownership of what they find in their surroundings. When a child knows, he *is* in some way what he knows, because he has internalised it and his mind has made him absorb his environment:

The new-born child is endowed with an urge, an impulse to face the environment and to absorb it. We might say that he is born with the psychology of conquest of the world. He absorbs it into himself and in absorbing it, he forms his psychic body. (Montessori, 1949, p. 123)

In this act of possession, the subject is the end of the knowledge as, by knowing, the person perfects *himself*: “The pianist must, therefore, *act for himself*, and the more his natural tendencies lead him to persist in these exercises the greater will be his success” (Montessori, 1912, p. 175).

For Montessori, as Standing notes, the adult's work has an external end: “To build a bridge, till a field or formulate a code of laws. It aims at building up and transforming his environment; it is a work of conscious effort, directed to the production of an external result — in short, to

help in building up a civilization” (Standing, 1966, p. 10).

In contrast, the child's work is totally different. As Montessori's biographer explains: “For him there does not exist this same clear consciousness of an external end to be achieved. The real aim of a child's activity is something deeper, more vital, occult — something which springs from the unconscious depths of the child's personality” (Standing, 1966, p. 10).

Let us suppose for example that a child wishes to clean an object; he will rub it for far longer than is necessary to make it clean. And so we often see a three-year-old repeat the same exercise 40 times. [...] The adult, unlike the child, is driven by external motivations that follow the law of the least effort in the shortest time. For the adult, competition and emulation are stimulants. This is not the case for the child. For the child, work is the continuation and reproduction of the act that makes him grow and become an adult. (Montessori, 1929, p. 222).

The child is his own masterpiece, Montessori explained in 1936 in an article published in the *Revista de Pedagogía*: “[The child must] construct for and of himself the most noble and beautiful edifice among all of the works of nature: the adult human” (Montessori, 1936, p. 241).

The child works to construct his own personality: “The child's work with respect to the needs of his growth, is an exercise that fashions his own personality” (Montessori, 2007a, p. 43). Children do not feel happy because they have achieved milestones external to themselves, but

because they have perfected themselves in accordance with what their nature demands. Therefore, one of the most important principles for Montessori education is that the adult should never do for a child what the child is capable of doing for himself. To do so would be to override the child. From this derive the ideas of *autonomy*, *independence*, and *self-education*, which should not be confused with arbitrariness, indeterminacy, and profligacy. Understanding these concepts from the perspective of an arbitrary construction would be a superficial interpretation that does not consider teleology in Montessori.

Therefore, Montessori explains that education cannot be reduced to a search for methods — a trend that had been growing since Comenius — that have the goal of transmitting certain pieces of knowledge, but must help to perfect people: “Education does not consist in seeking out new methods with a view to a dry transfer of knowledge; it must set out to aid in the development of the man” (Montessori, 1948a, p. 153).

Montessori is aware that the perfective activity the child performs does not always have meaning for the productive and utilitarian mindset of the adult:

[T]he adult judges them by his own measure: he thinks that the child's wish is to obtain some tangible object, and lovingly helps him to do this: whereas the child as a rule has for his unconscious desire, his own self-development. Hence, he despises everything already attained, and yearns for that which is still to be sought for. ... He prefers the act of washing himself to the satisfaction of being clean: he prefers

to make a little house for himself, rather than merely to own it. His own self-development is his true and almost his only pleasure. (Montessori, 1912, p. 356).

The author continues, using the example of a child who repeatedly goes up and down the stairs:

Another effort is to climb staircases; for us to climb up a difficult staircase is an aim, but not for the child. Having accomplished the climbing, he is not satisfied, he must come back to the starting point to complete the cycle and this too they repeat many times. The wooden or concrete slides we see in children's playgrounds offer opportunities for these activities; it is not the coming down that is important, it is the joy of going up, the joy of effort. (Montessori, 1949, p. 227).

What drives the child to repeat the exercise, what leads to his personal *progress*, is the pursuit of perfection (for example, perfecting the senses by being able to distinguish between two different sizes, colours, or sounds, or perfecting cognitive or spiritual faculties, like the ability to concentrate for long periods of time or appreciate harmony and beauty). The concept of *self-education* can only be understood in this framework. The end of education is, therefore, the *development of the personality* of the child in accordance with his own ends. Ultimately, the end of this repetitive exercise is *perfective activity in the exercise itself*.

6. Purposeful repetition and perfective activity

For Montessori, habit is part of education in freedom¹; perfection in human beings is acquired through voluntary habit:

In man this mechanism is not pre-established before birth and so it must be created, achieved through practical experiences on the environment. [The] co-ordination [of movement] is not given, it has to be created and achieved by the psyche. In other words the child creates his own movements and, having done so, perfects them. ... It is really marvellous that man's movements are not limited and fixed, but that he can control them. (Montessori, 1949, p. 152.)

What predisposes children to habit is their mysterious proclivity for repetition without tiring. As a result, it is only a matter of giving a direction and the means to detect and correct the error in this repetitive endeavour, through material that has an *intelligent purpose*. In this context, we can better understand how Montessori's defence of *rational spontaneity* differs from the activism proposed by the New Education, which is inspired by the spontaneity of Romanticism. Instead, her idea is more in line with Aristotle's idea of voluntary habits acquired through right rule and directed towards one's own good.

With regard to the virtues in *general* we have stated their genus in outline, viz. that they are means and that they are states of character, and that they tend, and by their own nature, to the doing of the acts by which they are produced, and that they are in our power and voluntary, and act as the right rule prescribes. (Aristotle, 1999, III, 5, 1114b25-29).

For Aristotle, we are masters of our actions, and our actions make us ourselves:

Now not to know that it is from the exercise of activities on particular objects

that states of character are produced is the mark of a thoroughly senseless person. Again, it is irrational to suppose that a man who acts unjustly does not wish to be unjust or a man who acts self-indulgently to be self-indulgent. But if *without* being ignorant a man does the things which will make him unjust, he will be unjust voluntarily. Yet it does not follow that if he wishes he will cease to be unjust and will be just. For neither does the man who is ill become well on those terms. (Aristotle, 1999, III, 5, 1114a9-15).

[T]he virtues are voluntary (for we are ourselves somehow partly responsible for our states of character, and it is by being persons of a certain kind that we assume the end to be so and so). (Aristotle, 1999, III, 5, 1114b21-24).

But actions and states of character are not voluntary in the same way; for we are masters of our actions from the beginning right to the end, if we know the particular facts, but though we control the beginning of our states of character the gradual progress is not obvious any more than it is in illnesses. (Aristotle, 1999, III, 5, 1114b29-1115a2).

The idea running through the *Nicomachean Ethics* (Aristotle, 1952a) that our character is the result of our behaviour, of our repeated and voluntary actions guided by reason, is clearly present in Montessori's writings. The child forms himself as he chooses his habits through repeated movement. Hence Montessori's idea of *self-education* in which *the child constructs himself*. The idea of *self-education* should be understood as the child building up his personality from a teleological conception, not a constructivist one. Once a habit has

been consolidated in a beneficial way, we are freer to choose good and we become capable of higher goods.

In *Spontaneous activity in education*, Montessori makes it clear that she does not view liberty in the same way as some of the Romantic educationalists who preceded her.

It was perhaps this error which caused a famous Italian pedagogist to say to me: "Liberty a new thing? Pray read Comenius — you will find that it was already discussed in his times". I replied: "Yes, many talk of it, but the liberty I mean is a form of liberty actually realized". He seemed not to understand the difference. I ought to have asked: "Do you not believe that there is any difference between he who talks of millions and he who possesses them?" (Montessori, 1917, p. 265).

Rousseau also speaks of the capacity of people to perfect themselves (*perfectibilité*). He states that the only distinction between human and animal resides in this capacity. But he also considers that this ability to perfect oneself is humankind's downfall:

It would be melancholy, were we forced to admit that this distinctive and almost unlimited faculty is the source of all human misfortunes; that it is this which, in time, draws man out of his original state, in which he would have spent his days insensibly in peace and innocence; that it is this faculty, which, successively producing in different ages his discoveries and his errors, his vices and his virtues, makes him at length a tyrant both over himself and over nature. (Rousseau, 1913, p. 338).

For Rousseau, habit is an obstacle as it binds the human being to a repetition or convention, thus creating needs and dependencies (Rousseau, 2010). For him, freedom is understood as indeterminacy. As Thomas Hobbes said, freedom is the ability to follow as many paths as possible (cited in Spaemann, 1994). Taking one specific path is considered as a route towards losing freedom. Consequently, repetition is an enslavement, a mechanisation that deprives us of freedom.

In *Émile*, Rousseau says that habit (for example, the habit of eating and sleeping at particular times) adds a need that alters nature and will prevent happiness. For him, unhappiness derives from the tension created between needs and desires. This is why Rousseau says that the only habit children should have is that of never contracting habits, doing whatever they wish at any time so that they never become accustomed to acting in one way or another:

The only habit that a child should be allowed is to contract none. Do not carry him on one arm more than the other; do not accustom him to want to eat, sleep, or be active at the same hours, to be unable to remain alone night or day. Prepare from afar the reign of his freedom and the use of his forces by leaving natural habit to his body, by putting him in the condition always to be master of himself and in all things to do his will, as soon as he has one. (Rousseau, 2010, p. 191).

For Rousseau, habit dresses the child in a second nature that replaces his true one, the primitive one. Rousseau also speaks of nature. However, he understands it as the

primitive condition, not as the principle of activity and criterion of growth, arguing that it is “only in this original state” that “power and desire” are “in equilibrium and man is not unhappy” (Rousseau, 2010, p. 211). For Rousseau, anything that takes the child out of this primitive state would be *against nature*: “[T]he closer to his natural condition man has stayed, the smaller is the difference between his faculties and his desires, and consequently the less removed he is from being happy” (Rousseau, 2010, p. 211). Rousseau believes that the person is not perfectible; what is innate cannot be improved or augmented.

In contrast, Montessori does not see habits or the imposition of an external structure as an obstacle to liberty². Furthermore, for her, repetition is how ideas are internalised, the personality is constructed, and internal discipline is acquired; it is the secret of perfection (Montessori, 1948b). She sees the child as a fundamentally perfectible being and the measures she proposes to achieve the ends in her conception of nature are aligned with these ends. The teaching material and environment are designed in accordance with an end, not according to the caprice or whim of the child or teacher; there is a model to which we must adapt ourselves, a material that guides learning.

7. Pleasure and the rational nature's inclination towards its end

The word *pleasure* appears over 40 times in a learning context (of reading and writing, identifying and correcting errors,

perfecting habits, etc.) in Montessori's first book (Montessori, 1912).

Montessori also calls it the *joy of effort*, a concept the pedagogues of the New Education were not willing to understand. We should recall that Montessori lamented the fact that Claparède and the movement he represented did not understand that rest and joy are perfectly compatible with learning, *sustained attention*, academic demand, and effort (Montessori, 2007b).

In Montessori, the question of pleasure (the *joy of effort*) derives from teleology and is fully attuned with Aristotelian thought.

Aristotle defines pleasure as *natural activity without impediment*³. For the modern vision of the New Education, pleasure is an experience, while in Aristotle, pleasure occurs in relation to a natural activity that achieves its end. Montessori returns to this definition in her writings: “[I]n the normally growing child, its unhindered activity is manifested in what we call ‘joy of life’. The child is enthusiastic, always happy” (Montessori, 1949, p. 122).

Ultimately, movements performed with a purpose directed towards their own end perfect the person. Montessori prepares children so that their inclinations are at all times governed by reason by means of inner discipline. Her method is designed on the basis of general and specific ends that adapt to the child with regards to each stage in its development. She proposes that children follow their inclination to enter into the order proposed by the

laws of nature (and teaching materials help them to do so), which is not the same thing as saying they have innate goodness. She herself notes this nuance: “Order is not goodness; but perhaps it is the indispensable road to arrive at it” (Montessori, 2007b, p. 32).

The continued references to sensitive periods are indicative of the importance she places on harmonising the educational intervention with what the nature of the child demands, and reflect the teleological focus of a process ordered towards its natural end. In the Montessori method, there is a sequential order that leads to an end, the notion of nature relates to the end and the end relates to the meaning that moves the child. The child is not born in plenitude, but directs himself towards it.

The classical conception of pleasure understood as *natural activity without impediment* means that people have a natural rational inclination towards ends that are suited to their natures. Indeed, Thomas Aquinas, an interpreter of Aristotle and an author Montessori frequently references (Montessori, 2016, p. 369), defines the eternal law as a natural inclination of each being towards its own good, and natural law as an expression of this law in rational beings. It is the light of the intellect by which they recognise for themselves what is right for them: “[F]rom it [the eternal law] being imprinted on them, all things derive their respective inclinations to their proper acts and ends” (Aquinas, 1920, I-II, q. 91, a. 2, co).

For Aquinas, “Every agent, of necessity, acts for an end” (Aquinas, 1920, Ia-IIae,

q. 1, a. 2, co) (without this implying that the end must be fully predetermined), as “the object of the will is good and the end in general” (Aquinas, 1920, Ia, q. 82, a. 4, co) and it is necessary for the person to guide his inclinations in accordance with reason.

Montessori is impressed by the inclination of the child’s rational nature towards its own good. She believes that the child has in its nature an innate capacity to recognise what is good, true, and beautiful. People, she explains, are drawn towards what is rational. Her proposal is in accord with Aristotle’s concept of *right rule* [*orthos logos*] (Aristotle, 1999, II, 1, 1103b33) and Aquinas’s concept of *synderesis* (Aquinas, 1920, Ia, q. 79, a. 12). In fact, in this inclination, Montessori finds an explanation for the mystery of *reduced fatigue* and *sustained attention* that she refers to in all of her works. People find rest in the intelligent voluntary acts they perform that have meaning. When performing them, they tire less and are unaware of the effort the tasks involve, or this effort is more bearable because their attention is focussed and they are immersed in what they are doing. In contrast, when they act in disorder or without inner discipline, they tire more easily.

[S]ince man is meant to be an intelligent creature, the more intelligent his acts are the more he finds repose in them. When a child acts only in a disorderly, disconnected manner, his nervous force is under a great strain; while on the other hand his nervous energy is positively increased and multiplied by intelligent actions which give him real satisfaction, and a feeling of pride that he has overcome himself, that he

finds himself in a world beyond the frontiers formerly set up as insurmountable, surrounded by the silent respect of the one who has guided him without making his presence felt. (Montessori, 1912, p. 354).

The idea of finding pleasure in an activity ordered towards its end is also found in Aristotle.

This may be seen, too, from the fact that each of the pleasures is bound up with the activity it completes. For an activity is intensified by its proper pleasure, since each class of things is better judged of and brought to precision by those who engage in the activity with pleasure; e.g. it is those who enjoy geometrical thinking that become geometers and grasp the various propositions better, and, similarly, those who are fond of music or of building, and so on, make progress in their proper function by enjoying it; so the pleasures intensify the activities, and what intensifies a thing is proper to it, but things different in kind have properties different in kind. (Aristotle, 1999, X, 5, 1175a30-b1).

Montessori rejects the idea of play as passive diversion: “We speak, it is true, of games in education, but it must be made clear that we understand by this term a free activity, ordered to a definite end; not disorderly noise, which distracts the attention” (Montessori, 1912, p. 180). For her, a child who can work without interruption and with full attention (and therefore can experience joy when doing it since pleasure is defined as *a natural activity without impediment*) is a *normalised* child. *Normalised* children are capable of overcoming what she calls *false fatigue* because when their persistent work becomes a habit, they become inclined to work with patience, per-

severance, discipline, order: “When work has become a habit, the intellectual level rises rapidly, and organized order causes good conduct to become a habit. Children then work with order, perseverance, and discipline, persistently and naturally” (Montessori, 1917, pp. 108-109).

8. Simplicity: The right and strictly necessary amount of stimuli

In the Montessori method, the environment must be beautiful, real, and simple. External stimuli must be the right and strictly necessary ones for two reasons. Firstly, excessive stimuli are obstacles to the perfective process which leads to the construction of the personality. They replace the child as the agent of the process. Secondly, sensitive periods are what guide the choice of what is or is not necessary. Accordingly, frenetic activities or stimuli may be counterproductive because they overwhelm the spontaneous movement guided by the sensitive periods; they lead students to distraction instead of concentration and they cause a reduction in internal activity. Stimuli that are not in harmony with the child's inner order are *obstacles* that impede the child's interest, concentration, and spontaneous activity. Therefore, this chaotic environment cannot inspire *pleasure in learning* in the Aristotelian sense, because it would blunt and saturate the senses. Consequently, far from facilitating truly active learning, it would impede it.

For Montessori, overabundance is an obstacle for education because it “debilitates and retards progress” (Montessori, 1917, p. 79).

9. The teleological focus on progress in Montessori

For Montessori, *progress* is synonymous with the child's perfective action; it is not a task that is external to it. This is another feature that differentiates Montessori from Romanticism. Indeed, she explicitly distances herself from the culture of social militancy that derives from Rousseau:

It is true that some pedagogues, led by Rousseau, have given voice to impracticable principles and vague aspirations for the liberty of the child, but the true concept of liberty is practically unknown to educators. They often have the same concept of liberty which animates a people in the hour of rebellion from slavery, or perhaps, the conception of social liberty, which although it is a more elevated idea is still invariably restricted. ‘Social liberty’ signifies always one more round of Jacob's ladder. In other words it signifies a partial liberation, the liberation of a country, of a class, or of thought. (Montessori, 1912, p. 15).

Therefore, the progress Montessori speaks of cannot be confused with that proposed by the project of modernity. For Montessori, the concept of progress is more akin to classical philosophy's conception of it because it is linked to the individual's perfective activity, and not to the realisation of social targets extrinsic to the person that characterises the dominant culture of modernity (Martin, 2006).

In fact, Montessori warns that seeing education as a constant search for solutions to problems is a utilitarian temptation that can lead us to take the wrong paths (Montessori, 1912). One of the false

paths to which Montessori refers when she rejects the problem-solving focus as an end in itself is the one that involves losing sight of the true ends of education. *The child develops according to his own ends through perfective activity*. For Montessori, the goal of education is the person and the masterpiece of education is the child himself.

The method must be directed to this end, which is found in the child's growing nature. For Montessori, the sensitive periods are the manual or route map that nature offers us to understand which environment education must provide at each moment to harmonise ends and means with the spontaneous activity that the child orders to his own development and learning.

The end is the intelligent purpose that motivates the child. Freedom and the concept of *self-education* in Montessori can only be understood in these terms.

The child who is "free to move about", and who perfects himself by so doing, is he who has an "intelligent object" in his movements; the child who is free to develop his inner personality, who perseveres in a task for a considerable time, and organizes himself upon such a fundamental phenomenon, is sustained and guided by an intelligent purpose. (Montessori, 1917, p. 195).

Ultimately, progress in Montessori begins with the silent improvement of each person from infancy, not in the noisy and chaotic social changes carried out by revolutionary adults.

10. Conclusion

Teleology is a central element in Montessori education. Understanding the implications of the teleological focus in Montessori helps us understand why she was at variance with the New Education movement, inspired by Jean-Jacques Rousseau, as well as her deep affinity with Aristotelian thought.

For Montessori, human activity is naturally directed towards an end and ordered by reason. The end of education is the child himself, as it involves perfecting the agent, taking what is only potential in the child and actualising it. The child's endeavour to construct his personality sometimes happens through the spontaneous activity of his absorbent mind and through repetition with a purpose, which creates positive habits, that it to say, true learning. The absorbent nature of the child's mind drives him to know, assimilating his environment. Hence, a prepared environment and control of error are crucial.

The activity Montessori proposes is internal and self-perfective, not merely external. This is how progress is understood in Montessori education. This vision is similar to that of the classical philosophers, for whom knowing is an internal or, in other words, immanent activity, which transforms and perfects the person who exercises it. Spontaneous activity in Montessori is not necessarily visible. Spontaneous movement can, for example, include: mental exercises the child performs when looking at a set of letters, silent observation when the teacher presents something, or the concentration of a child who realises

that the pieces of a certain material do not fit together and so tries again and again. Silence, immobility, and concentration here are signs of inner discipline. Without it, the child will not overcome *false fatigue* and learning will not be possible. Ultimately, for Montessori, it is not only possible to understand what is discovered but we can also understand what is received (through direct instruction or from the prepared environment, for example). We also discover what we are taught if we understand it.

The Montessori approach is especially relevant in the 21st century as active methodologies often insist on activity that is extrinsic to the pupil but does not necessarily insist on the pupil's internal dimension, which according to Aristotle is what contains the end (Aristotle, 1908, IX, 6, 1048b18-36). And this is especially so in a context in which attention is ever scarcer thanks to an environment that is progressively being invaded by the digital world and an overabundance of artificial and rapid stimuli. This context, paradoxically, encourages passivity instead of internal activity.

External stimuli must be the right and strictly necessary ones for two reasons. Firstly, excessive stimuli are obstacles to the perfective process which leads to the construction of the personality. They replace the child as the agent of the process. Secondly, sensitive periods are what guide the choice of what is or is not necessary. Accordingly, frenetic activities or stimuli may be counterproductive for learning because they overwhelm the spontaneous movement guided by sensitive periods;

they would drive the student to distraction instead of concentration.

In contrast, perfective activity, done with the right and strictly necessary amount of stimuli, means that the child finds rest in the voluntary activities performed with meaning and without obstacles. The resulting pleasure is not understood as mere *experience*, but in relation to a natural activity directed towards its end.

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Notes

¹ This is a classic thesis developed by Thomas Aquinas and, in our time, by Leonardo Polo (Murillo, 1996; Polo, 2016).

² The notion of *acquired habit* that Rousseau presupposes is very different from that of Aristotle, since for Aristotle, only negative habits constrain nature while positive ones, which are acquired through meaningful actions, expand nature's possibilities and perfect it (Bernacer & Murillo, 2014).

³ Pleasure is the "activity of the natural state" and is "unimpeded" (Aristotle, 1999, VII, 12, 1153 a 13-15).

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Inquiry-based learning in the university context: A systematic review*

El aprendizaje basado en la investigación en el contexto universitario: una revisión sistemática

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Abstract:

Inquiry-Based Learning (IBL) is a methodology that enhances learning through a knowledge construction process. The aim of this study is to establish how IBL is used and what effects it has on university students from social sciences and health sciences. This study follows the PRISMA guidelines for conducting systematic reviews. It comprises an analysis of 31 studies extracted from four electronic databases and reference lists on the topic, published in English between 1998-2019. The results show that the strengths of IBL are: 1) promoting cooperative learning,

2) engaging students in self-learning, and 3) increasing critical thinking. Its weaknesses include: 1) the inability to meet learning expectations, and 2) the reluctance of university hierarchies to embrace IBL. The potential of IBL as a teaching strategy at university level is discussed as it allows deep knowledge construction, increased learning motivation, and development of students' research skills as well as their self-learning, self-confidence, critical thinking, and academic performance. IBL favours meaningful learning by university students by offering a space for the creation of knowledge stimulated by the inquiry process.

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Keywords: inquiry-based learning, college students, teaching methods, active learning, systematic review, PRISMA.

Resumen:

El aprendizaje basado en la investigación (ABI) es una metodología que potencia los aprendizajes mediante un proceso de construcción del conocimiento. La finalidad del estudio era conocer cómo se está aplicando el ABI y sus efectos en estudiantes universitarios de ciencias sociales y de la salud. El método para realizar la revisión sistemática ha seguido las directrices de la declaración PRISMA. Se analizaron un total de 31 estudios extraídos de cuatro bases de datos electrónicas y listas de referencias sobre el tópico, publicados en inglés entre 1998-2019. Los resultados mostraron como fortalezas del ABI: 1) la promoción del aprendizaje cooperativo; 2) el compromiso del alumnado en su

autoaprendizaje, y 3) el aumento de un pensamiento crítico. Entre sus debilidades se señalan: 1) la incapacidad de cubrir las expectativas de aprendizaje, y 2) las reticencias de las estructuras universitarias hacia el ABI. A partir de estos resultados se discute el valor del ABI como estrategia didáctica en la universidad, en la medida en que permite profundizar en la construcción del conocimiento, incrementar la motivación de aprendizaje, desarrollar las habilidades de investigación, el autoaprendizaje, la autoconfianza, el pensamiento crítico, y el rendimiento académico. El ABI favorece el aprendizaje significativo en el alumnado universitario al ofrecer un espacio de creación de conocimiento estimulado por el proceso de indagación.

Descriptores: aprendizaje basado en la investigación, alumnado universitario, métodos de enseñanza, aprendizaje activo, revisión sistemática, PRISMA.

1. Introduction

Inquiry-based learning (IBL) encompasses a variety of teaching focuses deriving from the perspectives of Dewey and Bruner (Herman & Pinard, 2015) who argue that inquiry is at the centre of tasks, the use of resources, and learning instructions. IBL sets students challenges that: a) catalyse their engagement and participation, b) promote experiential learning, and c) stimulate exploration and the search for solutions (Aditomo, Goodyear, Blüch, & Ellis, 2013; Levy, Aiyegbayo, & Little, 2009; Oliver, 2008; Prince & Felder, 2007; Spronken-Smith,

Angelo, Matthews, O'Steen, & Robertson 2007). IBL is a promising approach for improving teaching and learning processes in universities.

IBL promotes a pedagogy centred on the student as an agent who actively seeks out and constructs knowledge (Healey & Jenkins, 2009; Justice, Rice, & Warray, 2009; Spronken-Smith & Walker, 2010). The importance of inquiry-based pedagogies resides in fostering students' capacity to adopt learning strategies that use inquiry techniques and tools, allowing them to construct their own knowledge

in greater depth (Levy & Petrulis, 2012). In IBL: a) scientific enquiry is built into the teaching-learning process; b) teaching focusses on the learner; c) learning is stimulated by inquiry when questions or doubts arise; d) teaching staff play a role as knowledge facilitators; e) learning is the outcome of a knowledge construction process that fosters cognition and metacognition; f) self-directed learning is stimulated (Aditomo et al., 2013; Levy & Petrulis, 2012; Spronken-Smith & Walker, 2010; Justice et al., 2007; Kahn & O'Rourke, 2004).

IBL provides students with a broad social scaffolding and guidance for managing their inquiry (Hmelo-Silver, Duncan, & Chinn, 2007); it promotes active learning with positive effects on students' achievements and their attitudes towards research (Maass & Engeln, 2018); it stimulates their problem-solving capacity, critical thinking, and reflection on learning (Bruder & Prescott, 2013; Minner, Levy, & Century, 2010); it fosters university students' research competence and training, improving the quality of what they learn and the process of peer collaboration (Bevins & Price, 2016); it promotes better understanding of subjects among students, as they accept the challenges their academic training involves (Åkerlind, 2008; Brew, 2003; Healey & Jenkins, 2009; Hunter, Laursen, & Seymour, 2007); and it increases their academic writing skills (Justice, Rice, & Warry, 2009).

Griffiths (2004) and Healey (2005) identify four IBL modes depending on

how the link between teaching and research is built:

- a) *Research-led*. The curriculum is dominated by the interests of teaching staff who set the information transmission model. Students learn about the results of research.
- b) *Research-oriented*. Teachers attempt to create a research ethic through teaching; the curriculum emphasises knowledge-production processes and the learning achieved. Students learn through the research process.
- c) *Research-based*. The division between the roles of student and teacher is minimised. The curriculum is largely designed around inquiry-based activities. Students learn as researchers.
- d) *Research-tutored*. Students learn on the basis of the results of research, formulated in small discussion groups with a teacher who facilitates the process.

According to Healey (2005), the curriculum must be redesigned to make the research-teaching nexus practical, planning a teaching process centred on students as the authors of their own learning. IBL has mainly been implemented in science subjects such as maths, physics, and biology. Systematic review studies of the application of IBL with university students from social and/or healthcare courses are rare. In order to establish how IBL is applied in these courses, we performed a study following the

guidelines from the PRISMA statement for performing systematic reviews and meta-analyses (Liberati et al., 2009). The objectives of this study are:

1. To identify the duration, source, and methodological characteristics of the studies analysed.
2. To examine the type of IBL mode used.
3. To analyse the objectives of the studies on the implementation of IBL and its effects on social science and health science students.
4. To analyse the limitations of the studies.

2. Method

2.1. Search and eligibility criteria

To search for publications about the use of IBL with university students from the social sciences and health sciences, we proposed a series of inclusion and exclusion criteria: a) articles must specifically state the use of active methodologies such as IBL; articles that only mention “Research Teaching Nexus”, “Learning Strategies”, “Compe-

tence-Based Learning” are excluded; b) the study population must be university students; studies focussing on non-university students are rejected; c) the date range of the publications included in the review must be 1998-2019; articles published before then are excluded; d) the selected publications must be limited to the fields of social sciences (education, psychology, anthropology, social work, etc.) and health sciences (medicine, nursing, physiotherapy, etc.); articles focussing on qualifications from other areas of knowledge are excluded; e) the articles must be written in English; those written in other languages are excluded.

The systematic review was carried out using various online databases: ERIC, Web of Science, Current Contents Connect, MEDLINE, PsycArticles, Academic Search Complete, and PsycInfo. These databases were selected for their relevance as they contain scientific articles published in indexed journals. To identify the search terms relating to the topic to be studied, we performed a preliminary literature search and consulted experts in IBL. We performed an iterative search in each database, combining the two sets of terms shown in Graph 1.

GRAPH 1. Truncated search strategy.

su(Inquiry-based learning OR Enquiry-based learning OR Guided-inquiry* OR Inquiry-based learning cycle OR Research teaching nexus OR research-based* method) AND su(method of teaching IBL* OR active learning OR Undergraduates* research OR self-directed learning OR student-centred OR student-focus OR High education)

Source: Own elaboration.

We used thesaurus terms (Graph 2) in the databases that offer this search option to find entries with the exact terms, according to the inclusion criteria established in the study.

GRAPH 2. Thesaurus terms search strategy.

SU.EXACT("Inquiry-based learning") OR SU.EXACT("Enquiry-based learning") OR SU.EXACT("Inquiry-based learning cycle") OR SU.EXACT("Inquiry-based activities") AND SU.EXACT("Research-led learning") OR SU.EXACT("Research-oriented learning") OR SU.EXACT("Research-based learning")

Source: Own elaboration.

2.2. Data collection and analysis procedure

The steps in this search were:

1. Establishing truncated search terms and thesaurus terms to limit the searches in accordance with the objectives of the study.
2. Searching for entries in the selected databases.
3. Ordering the entries obtained by relevance. When the number of search results exceeded 100 entries, we used the following filters to reduce the number: works subjected to double blind review; full texts with links; works from the 1998-2019 period; works published in English in academic journals.
4. Carrying out a second selection of the entries retrieved, using the title and/or abstract as the criteria and excluding ones that do not match the thematic area.
5. Making a data extraction sheet for each article with the inclusion criteria

specifying: the reference of the study; the reason for selection; title and/or abstract (university population, social sciences or health sciences, IBL); year of publication. Finally, their suitability was determined for subsequent analysis.

6. Verifying the degree of accuracy of the data extracted in the selection of articles.

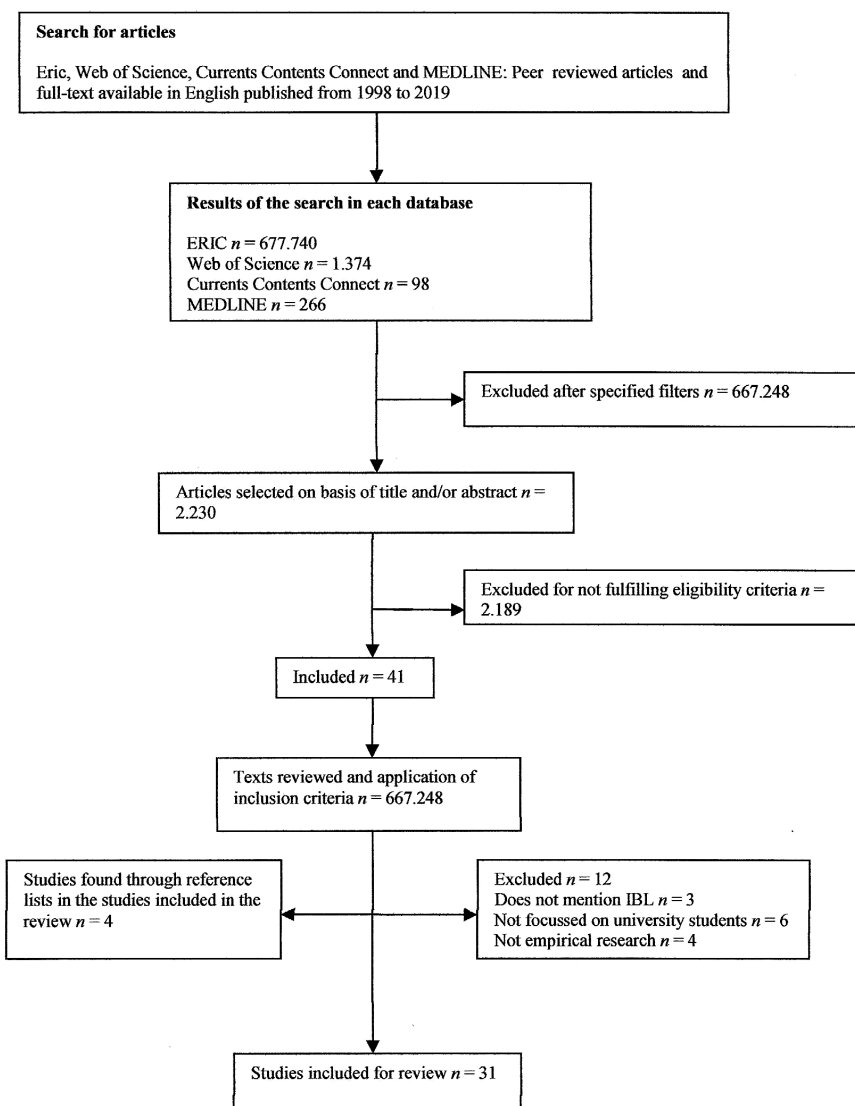
After a preliminary search in each database, we found that PsycArticle, Academic Search Complete, and PsycInfo did not return results that fitted what we wanted, and so we decided to eliminate them from the study. The search of the four remaining databases gave a total of 679,478 entries (Graph 3). After adjusting the search on the basis of the filters described in step 3, the number of entries was reduced to 2,230. Of these entries, 2,189 were rejected as they did not match the inclusion criteria. Once we had carried out the selection, we reviewed the complete texts of the 41 remaining studies. Of these, 29 met the inclusion cri-

teria. After reviewing the references in the selected articles, we decided to add 4 more works to the study as they fulfilled these criteria. Finally, in the systematic review we analysed 31 articles describing the application of IBL in social science and health science courses.

Each of the selected articles was analysed based on the following questions:

1. What are the origin, duration, and methodological characteristics of the studies?
2. What IBL mode do they use?

GRAPH 3. Systematic Search Procedure.



Source: Own elaboration.

3. What type of objectives are set and what are the effects on the students?
4. What are the limitations of the studies analysed?

3. Results and discussion

3.1. Duration, origin, and methodological characteristics of the studies

Of the studies analysed, 16% were carried out over one semester, 22% over an academic year, 25% in a few sessions or months, 12% over several years, and 25% did not state the duration of the intervention. Regarding the country where the studies were performed, 29% were carried out in England, 19% in the USA, 12% in Australia, 9% in Spain, another 9% in Turkey, and the remaining 22% in China, Thailand, Canada, Iran, New Zealand, Indonesia, and Saudi Arabia, with only one study from each of these countries. Regarding the main methodological characteristics of the studies, 36% used a quantitative methodology, 48% were qualitative studies, and 16% used a mixed methodology (Table 1).

a) *Quantitative studies*. Of these, 84% are experimental, 8% quasi-experimental, and 8% descriptive. The quantitative studies are generally: 1) experimental, with a control group and an experimental group, using pretest-posttest analysis with standardised questionnaires in a limited experimentation time (Irwanto, Saputro, & Prodjosantoso, 2018; Konokman & Yelken, 2016; Piyayodilokchai, Panjaburee, Laosinchai, Ketpichainarong, & Ruenwongsa, 2013); 2) longitudinal,

evaluating students' progress, starting with a conventional methodology and gradually introducing the IBL methodology (Zafra-Gómez, Román-Martínez, & Gómez-Miranda, 2015). Kienzler and Fontanesi (2017) propose a step-by-step study in which: 1) small groups of students were created who formulated a well-structured research challenge relating to KTE (Knowledge, Translation and Exchange) with the aim of breaching the "knowledge to action" barrier; 2) the students presented their challenges to the working groups for critical discussion; 3) they chose the challenges to continue to investigate; 4) the challenges were discussed in a workshop; 5) the learning process was evaluated using a feedback form halfway through the course and at the end of it.

b) *Qualitative studies*. Of these, 50% were descriptive, 22% were single-case studies, 14% ethnographic, and 14% were interpretative. The main characteristic of the qualitative studies was the time dedicated to the teaching programme or process (Barbera, García, & Fuertes-Alpiste 2017; Ghahremani-Ghajar, Mohammadi Doostdar, & Sadegh Mirhosseini, 2012; Levy & Petrulis, 2012; Tatar, 2015). For example, the aim of the study by Justice et al. (2009) was to investigate the use of IBL at McMaster University (Canada) since 1979; the informants were the teaching staff, administrative staff, and instructors who were interviewed to establish first-hand the experience of adapting IBL. Barbera et al. (2017) and Levy et al. (2009) carried out single-case studies, focussed on the information obtained from key respondents through interviews.

TABLE 1. Methodological characteristics, country, and duration of the studies analysed.

Authors	IBL mode	Research	Methodology	Participants	University/Country	Duration
1 Aditomo et al. (2013)	Research-Based	Experimental	Quantitative	224 Teachers from Various Disciplines (62% from Soc. Sci.)	Sandstone, Unitech, and Guntree, Australia	Not Specified
2 Akgul (2006)*	Research-Oriented	Descriptive	Qualitative	35 Primary Education Degree Students	Medipol, Turkey	Spring 2001
3 Azer et al. (2013)	Research-Tutored	Experimental	Quantitative	981 Students Faculty of Medicine	King Saud, Saudi Arabia	Not Specified
4 Barbera et al. (2017)	Research-Led	Single Case	Qualitative	2 Volunteer Students, 1 Teacher Online Tourism Degree	Oberta de Catalunya, Spain	1 Academic Year
5 Bolton et al. (2009)	Research-Based	Experimental; Descriptive	Mixed	90 Students (Business Admin.; Family, Youth, & Community Sciences)	Florida, USA	4 months
6 Brown (2010)*	Research-Oriented	Experimental	Quantitative	217 Students Medical Chemistry Course	East Tennessee State, USA	Autumn 2007
7 Bugarci et al. (2012)	Research-Oriented	Experimental	Quantitative	120 Students Biomedical Sciences	Queensland, Australia	One Semester
8 Deignam (2009)	Research-Oriented	Single Case; Experimental	Mixed	16 Tutors, 9 Students from 8 Higher Education Centres	Manchester, England	Not Specified
9 Ghahremani-Ghajar et al. (2012)	Research-Oriented	Ethnographic	Qualitative	120 Third-Semester Medicine Students	University of Tehran, Iran	2002-2006
10 Gros and López (2016)*	Research-Led	Exploratory	Quantitative	6 Lecturers from Different Faculties	Oberta de Catalunya and Barcelona, Spain	Not Specified
11 Healey et al. (2010)*	Research-Based	Single Case; Experimental	Mixed	200 Students	Gloucestershire, England	Not Specified
12 Horne et al. (2007)	Research-Led	Descriptive	Qualitative	15 Nursing Educators / 121 Students	Manchester, England	15 Weeks
13 Hossain and Rao (2017)	Research-Oriented	Interpretative	Qualitative	16 Students Education Faculty	Liverpool Hope, England	1 Academic Year
14 Irwanto et al. (2018)	Research-Tutored	Quasi-Experimental	Quantitative	48 2nd-Year Students	Muhammadiyah Ponorogo, Indonesia	One Semester
15 Ji and Bo (2017)	Research-Oriented	Experimental	Quantitative	53 Students	Hubei University, China	One Semester
16 Justice et al. (2009)	Research-Led/ Based	Descriptive	Qualitative	Soc. Sci., Health Sci., and Humanities Students	McMaster, Canada	Since 1979

17	Kienzler and Fontanesi (2017)	Not Specified	Experimental	Quantitative	22 3rd-Year Degree Students	Washington, USA	10 Weeks
18	Kirwan and Adams (2009)	Research-Led	Descriptive	Qualitative	8 Mentors for Nursing Students	Anglia Ruskin, England	Not Specified
19	Konokman and Yelken (2016)	Research-Led	Quasi-Experimental and Descriptive	Mixed	50 Future Early-Years Teachers	Mersin University, Turkey	2013–2014 Academic Year
20	Levy et al. (2009)	Research-Based	Single Case	Qualitative	12 Members of Academic Staff, Faculty of Arts and Soc. Sci.	Sheffield, England	2006–2007 Academic Year
21	Levy and Petrus (2012)	Research-Tutored	Descriptive	Qualitative	1st-Year Students Arts, Humanities, Soc. Science	Sheffield, England	Three or Four Full Years
22	Luke (2006)	Research-Based	Descriptive	Qualitative	17 Students, 1 Research Assistant, 1 Research Professor	Ball State, USA	Fourth Semester
23	Magnussen et al. (2000)	Research-Tutored	Experimental	Quantitative	257 Nursing Students	Hawaii, USA	1991–1995
24	McLean and Baker (2004)	Research-Led	Descriptive	Qualitative	History Students	Various Universities, England	January–June 2002
25	Morris and Turnbull (2004)	Research-Tutored	Ethnographic	Qualitative	240 Nursing Students	Anglia Polytechnic Uni., England	4 Months
26	Oliver (2008)	Research-Oriented	Experimental	Quantitative	263 Students	Edith Cowan, Australia	12 Weeks
27	Ortlieb and Lu (2011)	Research-Led/ Based	Interpretative	Qualitative	Education Students	Texas, USA	Not Specified
28	Piyayodilokchai et al. (2013)	Research-Based	Experimental	Quantitative	95 Students	Mahidol, Thailand	2 Sessions: 3 Hours Each
29	Spronken-Smith and Walker (2010)	Not Specified	Single Case and Checklist	Mixed	3 Students	Otago, New Zealand	Not Specified
30	Tatar (2015)	Research-Led	Single Case	Qualitative	41 Primary Teaching Students	Cumhuriyet, Turkey	2007–2008
31	Zafra-Gómez et al. (2015)	Research-Tutored	Experimental	Quantitative	Business Admin. and Management Students	Granada, Spain	2009–2010

* Works found through the reference lists of the studies included in the review.
Source: Own elaboration.

Hosein and Rao (2017), Levy and Petrulis (2012), McLean and Barker (2004), and Ortlieb and Lu (2011) carried out descriptive and interpretative studies in which they analysed reflective essays and interviews using the ATLAS.ti program.

c) *Mixed methodologies*. Of these, 20% combine an experimental and interpretative method; 40% a single-case study and an experimental study; 20% a quasi-experimental study and an interpretative study; and 20% a single-case study and a checklist to extract quantitative data. In the study by Spronken-Smith and Walker (2010), three lecturers who used the IBL methodology were given a checklist about the focus of the inquiry, they were observed during class sessions, and they were interviewed about the processes and the results obtained.

3.2. IBL Mode

The studies display the four IBL modes described by Griffiths (2004) and Healey (2005) (see Table 1). Of the studies analysed, 29% used the research-led mode, emphasising the elaboration of a knowledge-construction process dominated by the interests of the institution; 26% of the studies used the research-oriented mode, centring the students' learning process on research and on how knowledge is created; 26% of the studies used the research-based mode, as the teaching process focussed on the active role of the student in this process, minimising the role of lecturers; and 19% were based on the research-tutored mode, as the teaching process focusses on small discussion groups guided by the lecturers who offer

students feedback on the progress they make.

After identifying the modes in each of the studies analysed, the question arose of whether they all conceptualised the IBL methodology in the same way. Many authors regard the IBL methodology as a constructivist teaching method that connects students with learning, enabling them to explore research and knowledge creation from different perspectives (Healey, Jordan, Pell, & Short, 2010; Levy & Petrulis, 2012; Spronken-Smith & Walker, 2010; Zafra-Gómez et al., 2015).

Although the terms used to describe the four IBL modes vary, they do all describe the students' participation in an inductive way in which they are encouraged to take responsibility for their own learning and knowledge exchange when working in groups. Some authors identify the IBL methodology with the problem-based learning methodology without distinguishing between them; both are regarded as part of a common philosophical approach to achieving inductive learning (Azer, Hasanato, Al-Nassar, Somily, & Al-Saadi, 2013; Deignan, 2009; Horne et al., 2007; Kirwan & Adams, 2009; Morris & Turnbull, 2004).

According to Ghahremani-Ghajar et al. (2012), IBL starts from a broad teaching-learning focus as it derives from a variety of interpretations and practices rooted in problem-based learning (PBL) that were originally proposed in medical education. Aditomo et al. (2013) note that IBL is based on pedagogical focuses

aimed at achieving learning based on inquiry; in this case, it is applied through problem-based learning strategies, project-based learning, and case-based learning. Although there are differences with how IBL is conceptualised, including whether or not it is combined with other pedagogical focuses, all of the authors identify their methodology as an opportunity to achieve inductive learning, as: a) it enables responsibility-taking in learning and in actively contributing to the teach-

ing process; and b) it offers multiple benefits in the training of future education and health professionals (Hosein & Rao, 2017; Ji & Bo, 2017; Magnussen, Ishida, & Itano, 2000; Oliver, 2008).

3.3. Student objectives and effects on students of using IBL

In the studies analysed, five objectives in the implementation of IBL were identified, as well as the effects this methodology had on university students (Table 2).

TABLE 2. Effects on students of using IBL.

	Authors and Year	Increase in Knowledge	Search Skills	Academic Performance	Self-Confidence	Self-Learning	Motivation	Critical Thinking
1	Aditomo et al. (2013)	Yes	Yes	-	-	Yes	Yes	Yes
2	Akgul (2006)	Yes	Yes	-	-	Yes	-	-
3	Azer et al. (2013)	Yes	Yes	Yes	Yes	Yes	Yes	-
4	Barbera et al. (2017)	Yes	-	-	-	Yes	Yes	-
5	Bolton et al. (2009)	Yes	-	-	-	Yes	Yes	Yes
6	Brown (2010)	Yes	Yes	-	Yes	-	-	Yes
7	Bugarci et al. (2012)	Yes	Yes	-	-	Yes	-	-
8	Deignam (2009)	Yes	Yes	Yes	-	Yes	Yes	-
9	Ghahremani-Ghajar et al. (2012)	Yes	-	-	-	Yes	-	Yes
10	Gros and López (2016)	Yes	-	-	-	Yes	-	-
11	Healey et al. (2010)*	Yes	Yes	-	-	Yes	Yes	-
12	Horne et al. (2007)	Yes	Yes	-	Yes	-	Yes	Yes
13	Hosein and Rao (2017)	Yes	Yes	-	Yes	Yes	Yes	-
14	Irwanto et al. (2018)	Yes	Yes	Yes	-	Yes	-	Yes
15	Ji and Bo (2017)	Yes	Yes	-	-	Yes	Yes	-
16	Justice et al. (2009)	Yes	-	Yes	-	Yes	Yes	-
17	Kienzler and Fontanesi (2017)	Yes	Yes	-	Yes	Yes	Yes	Yes
18	Kirwan and Adams (2009)	Yes	-	-	Yes	Yes	Yes	-
19	Konokman and Yelken (2016)	Yes	Yes	Yes	-	Yes	Yes	-
20	Levy et al. (2009)	Yes	Yes	-	-	Yes	Yes	-

21	Levy and Petrulis (2012)	Yes	-	Yes	Yes	Yes	Yes	Yes
22	Luke (2006)	Yes	-	Yes	-	Yes	-	-
23	Magnussen et al. (2000)	Yes	-	-	-	-	Yes	Yes
24	McLean and Baker (2004)	Yes	-	-	-	Yes	Yes	Yes
25	Morris and Turnbull (2004)	Yes	-	-	Yes	Yes	Yes	-
26	Oliver (2008)	Yes	Yes	-	Yes	Yes	Yes	-
27	Ortlieb and Lu (2011)	Yes	Yes	-	Yes	Yes	Yes	Yes
28	Piyayodilokchai et al. (2013)	Yes	Yes	Yes	-	Yes	Yes	-
29	Spronken-Smith and Walker (2010)	Yes	Yes	-	-	Yes	Yes	-
30	Tatar (2015)	Yes	Yes	-	-	Yes	Yes	-
31	Zafra-Gómez et al. (2015)	Yes	-	Yes	Yes	Yes	Yes	Yes

Source: Own elaboration.

Objective 1. *Examining the effect of using the IBL methodology in the teaching-learning process.* Of the studies, 33% set out to evaluate what the main effects of implementing the IBL methodology were. For example, analysing students' misgivings about the implementation of IBL for preparing digital stories, or the use of alternative measures taking Pierce's triadic model of inference as a starting point (Konokman & Yelken, 2016; Ortlieb & Lu, 2011); observing how students accept information about the current economic and financial situation after working on the topic (Zafra-Gómez et al., 2015); examining possible departmental resistance to the implementation of IBL and the benefits it provides for graduates (Justice et al., 2009). The studies showed: 1) positive effects in the adoption of the IBL methodology, so long as the process is appropriately structured; 2) a significant increase in students' knowledge and skills in the short and long term; 3) an improvement

in their academic performance (Azer et al., 2013; Konokman & Yelken, 2016; Justice et al., 2009). The results of the study by Levy et al. (2009) show the great potential of the IBL methodology, as it offers opportunities for reflection and discussion that foster a high degree of empowerment; to do this, teaching staff need to have access to a wide range of IBL experiences, some structured and others led by the students.

The students identified the need to take the social aspect of IBL into account, as they learnt from the efforts of their classmates as well as their own efforts. Although they were aware of a possible increase in anxiety and stress in the learning process, they viewed it positively owing to the benefits for their learning (Deignan, 2009; Ji & Bo, 2017; Luke, 2006). Healey et al. (2010) observed that IBL fosters students' interest in curriculum content and increases their motivation as they believe that pursuing postgraduate study is practical.

Objective 2. *Evaluating the development of research competences in students.* Of these studies, 11% set out to examine students' own awareness of the development of their research competences when writing reflective essays (Hosein & Rao, 2017), and to evaluate how the inquiry based teaching process is understood and experienced, relating it to the students' epistemological construction (Levy & Petrulis, 2012). These studies showed a growing enthusiasm among students for research learning, as they see the potential of a student-centred methodology for their future training (Hosein & Rao, 2017; Levy & Petrulis, 2012). Akgul (2006) observed that students regarded science as a process of finding more truths or facts, and that their levels of learning depended on their involvement and commitment.

Objective 3. *Promoting learning tasks or results by implementing IBL.* Of these studies, 22% use IBL as a way of introducing values related to volunteering in a non-profit organisation (Bolton, Brennan, & Terry, 2009), or of investigating students' achievement when a cyclical learning model is assumed that is complemented by multimedia resources (Piyayodilokchai et al., 2013). We observed that this methodology is effective for inverting the role of the student as a mere passive receptor; students were able to learn how learning is managed, they accepted challenges, and their self-confidence increased (Bolton et al., 2009; Kienzler & Fontanesi, 2017). Aditomo et al. (2013) identify eight research tasks for achieving satisfactory learning outcomes after applying IBL: academic research, simplified research,

inquiry-based literature, inquiry-based discussion, applied research, simulated applied research, implementing practice, and role playing. After implementing IBL, a wide range of educational objectives were achieved that involved cognitive, metacognitive, affective, social, and epistemological aspects.

Objective 4. *Exploring the development of critical thinking.* Of these studies, 19% set out to explore what the students' critical perspectives were when a research challenge was posed in language learning (Ghahremani-Ghajar et al., 2012), or to examine changes in students' critical thinking after implementing IBL, comparing their opinion at the start of their course with their opinion at the end of it (Magnussen et al., 2000; Tatar, 2015). It was apparent that if the IBL methodology was well structured and implemented in small groups, it provided benefits for university students, and a significant impact on critical thinking and problem-solving skills was also noted (Irwanto et al., 2018; Ghahremani-Ghajar et al., 2012; Tatar, 2015; Gros & López, 2016). Bugarcic, Zimbardi, Macaranas, and Thorn (2012) observed that using IBL promotes meaningful learning and encourages students to approach ideas and critically evaluate what they encounter in a "real" research setting, while at the same time obtaining a high level of detailed knowledge of the content.

Objective 5. *Promoting personal skills and competences for self-learning.* Of the studies, 15% had the aim of examining whether using IBL has an impact on mo-

tivation, self-confidence, self-learning, scientific attitudes, and engagement in participation (Ji & Bo, 2017; Oliver, 2008; Brown, 2016), or examining students' capacity for autonomy in their learning, positively and/or negatively, and their reactions and interpretations in the face of cyclical research (Luke, 2006). The students reported that the IBL methodology stimulated their desire for knowledge, stimulated their enthusiasm for self-learning, and strengthened their self-efficacy and motivation.

In general, studies identify: a) increased student motivation, b) improved understanding of subjects and of their relevance to society, c) increased collaboration between students when working together to achieve a common goal, d) an increase in joint responsibility in carrying out tasks, e) improved interpersonal skills and skills in performing work roles (Bruder & Prescott, 2013; Frezell, 2018). One hundred per cent of the studies showed that using IBL fostered increased knowledge by students; 61% demonstrated a development of research skills; 29% showed an increase in academic performance; 36% an increase in students' self-confidence; 90% an increase in students' self-learning; 70% enhanced motivation for learning; and 40% an increase in critical thinking.

3.4. Some limitations of the studies

This section sets out some limitations of the studies:

1) The research in the articles was carried out on the basis of a particular IBL model and with very specific groups of

students; although a snapshot of the students' experience and of facilitator perspectives in a given context was obtained, the application of IBL with other samples should be explored to consider generalising the results (Horne et al., 2007; Spronken-Smith & Walker, 2010).

2) In some studies, the limitations derive from the university structures, as there can be resistance in departments as they do not see obvious benefits in the implementation of IBL or they believe that it might alter existing power structures and how resources are assigned (Justice, Rice, Roy, Hudspith, & Jenkins, 2009).

3) Other limitations derive from the research method used; using a qualitative method risks biasing students' responses towards an excessively optimistic focus on IBL if the interviews are carried out by the principal researcher (Luke, 2006). The use of focus groups can influence results as students who enjoyed the class or interacted with the teacher-researcher sometimes talk more (Luke, 2006; Morris & Turnbull, 2004). Regarding the quantitative methodology, standardised measurement instruments can bypass the experiences and emotions generated in the process by only offering students closed answers (Magnussen et al., 2000).

4. Conclusions

This systematic review identified 31 articles on IBL experiences in social science and health science courses. These experiences were not limited to a single country and they approached the appli-

cation of IBL from different research perspectives (quantitative, qualitative, and mixed). The objectives identified in the studies not only focus on establishing the possibility of implementing IBL in the classroom but also on understanding what the main effects are on the teaching process, what research competences the students acquire, how learning results are promoted, how critical thinking is developed, and how personal skills and competences are fostered. To discover whether this methodology can be beneficial for the teaching-learning process and the development of students' research competences, the authors applied different IBL modes and determined their strengths and weaknesses. As strengths, the authors identified: exploring knowledge in greater depth, promoting cooperative learning, students' commitment in their self-learning, and increased critical thinking. Among the weaknesses, the following were noted: the inability to cover the students' learning expectations and university hierarchies' misgivings about IBL.

IBL favours meaningful learning by university students by involving them in a process of doing research and it strengthens the inquiry-teaching bond so long as the process allows agents to express their experiences and emotions. To carry out IBL processes, it is necessary to emphasise to students the need to construct knowledge and strengthen their responsibility in the teaching-learning process (Healey, 2005; Levy & Petrulis, 2012). The IBL methodology provides a strong social scaffolding and active learning, fostering per-

sonal research skills, joint responsibility in completing tasks, and the capacity for reflection in learning situations (Bruder & Prescott, 2013; Frezell, 2018; Hmelo-Silver et al., 2007).

In essence, IBL provides a learning process that: a) fosters the development of research competences in a student cohort that accepts the challenge of their self-learning; b) provides a space for knowledge creation stimulated by inquiry; and c) fosters students' interest in and commitment to their learning process and doing work of high academic quality.

This study's main limitations are that it restricted its search to: 1) articles on IBL written in English, 2) articles that applied this methodology to qualifications from the social sciences and health sciences in a university setting. In future research, it will be necessary to expand the search criteria to include works written in Spanish and works that cover other fields of knowledge and educational stages. Nonetheless, this study provides valuable information for identifying possibilities for implementing IBL in qualifications that educate future professionals in the fields of the social sciences and health sciences.

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Book reviews

Moreno, A. (2020).

Personalizar, un modelo para una educación de calidad en el siglo xxi. Informe Delphi de Expertos [Personalise, a model for quality education in the 21st century. Delphi Expert Report] (Cristina Medrano Pascual).

Fuentes, J. L. (Ed.) (2019).

Ética para la excelencia educativa
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Book reviews

Moreno, A. (2020).

Personalisar, un modelo para una educación de calidad en el siglo XXI. Informe Delphi de Expertos [Personalise, a model for quality education in the 21st century. Delphi Expert Report].

Barcelona: Impuls Educació. 77 pp.

Personalisation is an educational concept that focusses on achieving high levels of quality in education. The research under review delves into the essential and clarifying elements of personalisation in order to reach consensus about its definition. The text has four distinct sections under the titles of: “Introduction”, “Delphi panel of experts”, “Final agreement”, and “Conclusions”, which in turn are broken down into several sub-sections. Together with the prologue and the annexes, the specified blocks manage to structure the information and successfully guide the reading of this report.

The work begins with an initial review of the origin of personalised education, which, although it is a central focus of 21st century

education, was already a trend in the educational systems of the previous century, where figures like Dewey, Decroly, Montessori, Freire, Freinet, Faure, and García Hoz placed the student at the centre of the process. Thus, these and other authors agree that the educational context should enable all of them to develop their own talents or abilities as an unavoidable goal of quality education. It is understood, therefore, that any pedagogical proposal that presents this principle constitutes a type of education that is revealed as a profound human need within the framework of today's society. But just as each student is different and has personal needs that personalised education should provide, the idea itself creates conflict when it comes to defining it. The perspective from which each academician defines the same concept has multiple interpretations, which led the present study to generate a way for experts to communicate with the aim of building a common consensus framework.

For this purpose, several dimensions were developed, first of all, to establish

a conceptualisation of personalisation in education and to deepen its meaning within the educational context, to justify the importance of investing in it, to make a detailed list of principles or criteria as a guide and evaluation to ensure its effectiveness, to propose strategies for its implementation and, finally, to assess its future possibilities. The text sets out in detail how the necessary tasks to meet these objectives were carried out, making it easier to understand the laborious process by which a group of experts or scientific committees reach an agreement. Before delving into this matter, it explains what a Delphi panel is and which different types can be selected according to the orientation of the study, highlighting this methodology as the only valid option for a group of professionals and academicians who meet its needs. Once the decision to make such a panel has been clarified, a thorough explanation of each of the parts of the study and how each of them was developed is provided.

Thus, in a first phase, the problem was limited to establishing the above objectives. In the second phase, the group of respondents was created, with their profile and number being determined according to selection criteria. In the third phase, the initial questionnaire from which the research objectives were to be achieved was prepared, and finally, in phase four, the results were analysed and a final report was prepared. Each of these phases is perfectly described, allowing the path to consensus to be thrashed out to favour the reader's understanding. Six blocks or stages were set up with six ob-

jectives and various items to study and, after a long and costly analysis of the responses given by the participating experts, a final agreement was reached that allows the research to be completed in the conclusion section, a section that is designed to be one of the most prominent of the entire report.

If the primary objective was to build a common consensus framework on what was meant by personalisation of education, the text may consider this challenge as having been overcome. Within the consensus, the conclusions themselves highlight ideas that allow us to understand a little more deeply what we mean when we talk about personalised education. Personalisation means an approach to the uniqueness of each person, allowing the students to be the centre of the process and to be responsible for the promotion of their skills or their trajectory and recognition of identity. In addition, personalised learning is closely related to experience, which has its own value, which makes it especially meaningful. The model of personalised education, as noted in the book, is aimed at *educating singular, autonomous, open, responsible, solidary, and resilient people, capable of exceeding themselves and persevering by themselves*, emphasising the need to *educate in and for freedom*. This personalisation does not ignore the rest of society, but aims to train citizens capable of thinking critically and making the most of their ability to be solidary and committed to the world, because integrity will only be achieved through personal and social improvement. In implementing this model, a solid foundation that is supported by the

school as a promoter of the principles established therein should be implemented so that all staff members are part of the process, as well as key elements such as educational organisation; the curriculum, to provide education about the elements that are needed in personalisation; the choice of methodologies and strategies to support it; evaluation as an integrated part of learning and its emphasis on progress and effort rather than on the outcome and, of course, highlighting the teachers' work of connecting what happens in school and out of school, personal guidance and individualised mentoring, as well as active collaboration between school and family.

Personalised education, still under review in terms of its conceptualisation, is a major challenge for the future. This model is a window that will allow education to spread its wings toward personalisation to educate resilient and global-minded people, with a great sense of respect and care for others to preserve cultures, values and, ultimately, the planet. The text states that some divergences continue to emerge, such as what professional or academic experts contemplate, but they are all aware of the importance of contemplating the person as a whole, with all that this implies. There is still a lot of work ahead of us, but if one thing is clear, it is that this research considers the need to continue to pursue this long-awaited consensus as a challenge, with the aim of making personalised education a reality and, ultimately, becoming a consolidated and effective model of what quality education should be.

Cristina Medrano Pascual ■

Fuentes, J. L. (Ed.) (2019).

Ética para la excelencia educativa [Ethics for educational excellence].

Madrid: Síntesis. 198 pp.

The book *Ética para la excelencia educativa*, recently published by Juan Luis Fuentes, María Dolores Conesa Lareo, Juan García-Gutiérrez, Ernesto López-Gómez, and Marta Ruiz-Corbella, considers the idea of education as an art in which all of its dimensions must be taken into consideration to achieve a continuous, free, and morally good process along with other questions of current interest.

From an ethical perspective, this work considers: the application of philosophical notions to education; some of the most controversial topics, such as the use of new technologies; and classic questions regarding what education is, what it is for, and what the role of the educator is at present. In addition, it is worth noting that it pays attention to the great influence educators have on the lives of others, since their work requires a high degree of responsibility and commitment, something that at the same time makes it a pleasant, satisfying, and gratifying way of life.

The book is divided into ten chapters, starting with an analysis that considers questions such as the educational task and notions of goodness. In order to reach a complete understanding of the other chapters, it is necessary to distinguish between two types of good: absolute and relative. By so doing, we can understand the importance of directing education towards an absolute good (morally good actions)

to achieve comprehensive human development. The last part of this chapter argues for the value of teaching competences and knowledge at the same level as teaching ethics in order to arrive at complete moral and pragmatic liberty.

The second chapter considers education as an art comprising a lifelong commitment and complete dedication, as well as the educators' role which requires them to be not only simple transmitters of knowledge, but also valuable reference points for learning, that is to say, they provide encouragement that motivates every student towards the desire to learn. To do this requires the complete acquisition of certain attributes: honesty, authority (linked to goodwill), respect for difference, the ability to listen, and observation.

The third chapter considers three topics related to the status of educational work. The first matter distinguishes between education as a profession in which trained professionals perform an educational action, and education as a vocation understood as a service and a way of life that includes a great moral commitment. The second topic approaches education as a supportive profession that enables all learners to discover the best of themselves, so creating free and responsible citizens. And the third and final topic describes the professional identity of educators and their social and professional image as well as the factors shaping this.

Chapters four and five comprise a significant analysis of contemporary society and the different settings connected to

education, including the virtual setting, which completely changes notions of space and time. These chapters focus on educational institutions and their necessary social responsibility, taking into account all of the elements this includes. Deontological codes are also analysed from their emergence to the present day, underlining how important it is to update them and extend them to all educators (people involved in education) and towards an autonomy of judgement (in accordance with the variety of situations). The reflections on the universalisation and globalisation that technology brings are also of interest, as they focus on its objectives in education to achieve human plenitude, making good use of these media. Finally, there is a reflection on what is valued by society as it centres more on the outcome than on processes, on increasing skills more than the effort to acquire them, attributing people a perfect character that is clearly unobtainable.

The next chapter continues with the reflection on technology, this time considering the acquisition of new skills. As such, it defines digital competence as a basic skill in which it is necessary to identify a level of use and a level of meaning (pp. 102-103) that at the same time interact with the concepts of internal good and external good. The role the educator must adopt in cyberspace is also analysed, remembering the principle of continuity in this context and its relationship with the idea of post-truth.

Chapter seven focusses on the quality of teachers and presents various reasons

for which an educator must be regarded as a moral model (p. 122). These relate to their character traits and also accept education as a supportive profession in which an emotional connection with the student is created and they give great importance to *leading by example*. In addition, at the end of the chapter, various obstacles to considering the educator as a moral model and possible solutions for overcoming them are offered.

The implementation and characteristics of ethical learning are covered in chapter eight, where the need to develop this learning in an integrated way is noted. According to the authors, ethics can be found in every subject, and achieving a multidimensional education requires different dimensions, such as the cognitive, the behavioural, and the affective, to be combined. Finally, the possibilities of cultural learning in the promotion of ethical learning are considered.

The teaching of ethical behaviour is covered in chapter nine, which starts by defining education as a concept that influences and affects all spheres (personal, public, and professional) to achieve each individual's full development. The moral dimension is emphasised as a process of building and teaching human beings' technological skills and attitudes in relation to the current setting, in which we find a clear development of technologies. Constant analysis as well as making decisions and acting according to the situation one is in are needed to be able to achieve successful moral education, and this includes the constant interactions between the digital

and physical worlds, linked to the needs of a multicultural and intercultural society. Therefore, education is vital in this scenario, as it acts as a guide and provides the knowledge and skills that enable human beings to be morally free. The authors also present strategies for and obstacles to putting moral education into practice, as well as the principal theories on which they are based (p. 158). The last section makes special reference to a recent moral learning model — service-learning — which is implemented in a wide variety of contexts, subjects, and activities. As it is set forth, all service-learning starts with a societal need, which is relieved by putting into practice the content students learn. This involves a concept of complete educational renovation where the knowledge acquired is applied to a real situation of need while at the same time achieving ethical and civic learning.

The last chapter considers the concept of ethical learning in greater depth, this time focussing on evaluation, which must be approached as a dynamic process aimed at complete educational development. The importance of using a wide range of strategies in which feedback is a key aspect stands out as this provides a starting point for future learning, making this activity part of a circular process that makes learning continuously throughout life possible.

In essence, this book on educational ethics is required reading for any educator or anyone connected — or interested in being connected — with education. Its focus is simultaneously theoretical and

didactic, as shown by the final comments in each chapter, which are often linked to teaching practice, and the original activities proposed in all of them. The wide variety of topics it considers are proof of the significance of ethics in education, which too often tend to be forgotten or underestimated, foregoing one of the essential elements of the task of educating:

its ethical dimension. Furthermore, this book is not just for newcomers or for experts, but rather for both since depending on the stage in life they have reached, each educator will be able to draw different conclusions, analyses, and reflections linked to their educational practice.

Ana García-Bravo ■



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