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Design and validation of an instrument to assess students'perceived school coexistence*

Diseño y validación de un instrumento para valorar la convivencia escolar percibida por los estudiantes

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Abstract:

A good climate of harmonious coexistence in educational institutions can improve students' well-being, self-esteem, and academic results and prevent maladaptive behaviours. Several questionnaires assess coexistence by quantifying the types of problems that occur, but there are few that focus on managing it and implementing programmes to improve it. The aim of the present research is to validate a questionnaire for evaluating students' perception of the management of school coexistence. This questionnaire centres on the 21-item Integrated Model of School Coexistence. We used random cluster and stratified sampling with the participation of 1169 students from 34 centres in year six of primary education and secondary education from the Autonomous Community of Madrid. The questionnaire was validated by expert judgement. We used the SPSS v24 and AMOS programs to perform exploratory and confirmatory factor analyses, respectively. The results show 4 factors with reliability indices ranging between .737 and .859 (Factor 1, protective framework for coexistence; Factor 2, student mediator program; Factor 3, student assistant program; Factor 4, democratic rule-making processes). Finally,

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the empirical fit with the Integrated Model for fostering more harmonious relations in school communities was confirmed.

Keywords: measuring instrument, peaceful coexistence, mediation, programme evaluation, questionnaire, school climate.

Resumen:

Un buen clima de convivencia en los centros educativos puede mejorar el bienestar, la autoestima, los resultados académicos del alumnado y prevenir conductas desadaptativas. Existen cuestionarios que evalúan la convivencia cuantificando los tipos de problemas, pero muy pocos instrumentos se centran en su gestión e implementación de programas. El objetivo de esta investigación es validar un cuestionario de evaluación de la gestión de la convivencia escolar desde la percepción del alumnado, centrado en el modelo integrado de la convivencia. Para ello, se ha realizado un muestreo aleatorio por conglomerados y estratificado en el que han participado 1169 estudiantes de 34 centros de 6.º de Primaria y Secundaria de la Comunidad Autónoma de Madrid. Tras la validación por juicio de expertos, se han empleado los programas SPSS v24 y AMOS para realizar el análisis factorial exploratorio y confirmatorio, respectivamente. Los resultados arrojan 4 factores, cuyos índices de fiabilidad oscilan entre .737 y .859 (Factor 1: marco protector de la convivencia; Factor 2: programa de alumnos/as mediadores; Factor 3: programa de alumnos/as ayudantes; Factor 4: procesos democráticos de elaboración de normas). Finalmente, se confirma el ajuste empírico al modelo integrado de mejora de la convivencia.

Descriptores: instrumento de medida, convivencia pacífica, mediación, evaluación de programas, cuestionario, clima escolar.

1. Introduction

There is considerable social awareness of the need to foster school coexistence and prevent problems relating to violence in schools. As a result, in recent years there has been an increase in educational measures and initiatives such as the Education and Training Strategic Framework (Marco Estratégico Educación y Formación – ET2020) (Eurydice España rediE, n.d.), the School Coexistence Strategic Plan (Plan Estratégico de Convivencia Escolar – MEC, 2017). Furthermore, Spain's Organic Act 8/2013, of 9 December to Improve Educational Quality and the Spanish Constitution (art. 27) (BOE, 1978) provide reference standards for school coexistence.

These initiatives have contributed to greater awareness among students as Spain's results in the PISA report show (OCDE, 2018) with 92% of students believing it is good to help people who cannot look after themselves and expressing positive feelings of belonging to the centre when cooperation is predominant. A supportive, safe, and healthy school environment promotes improvements in academic results, well-being, and self-esteem; it reduces the link between low economic status and academic results; it protects students from

maladaptive behaviour; and it increases teachers' job satisfaction and it reduces burnout (OECD, 2019). Similarly, learners' participation in coexistence programmes and their involvement in management results in improved life in school communities.

From this perspective, our theoretical referent is the Integrated Coexistence Improvement in Educational Institutions Model (modelo integrado de mejora de la convivencia —MIMCO) (Torrego Seijo, 2010). This is based on a conceptualisation of coexistence that goes beyond preventing violence and becomes an exciting project that requires a collective commitment to living with and for others (Torrego Seijo, 2019). This reminds us that conflict is inherent to life, and encourages non-violent management, which involves creating processes of social participation aimed at establishing of a feeling of belonging at the institution and incorporating students into core aspects such as setting rules. In essence, it is a holistic focus that promotes a framework of values centred on peaceful conflict resolution, participation, cooperation, and solidarity; it manages peaceful coexistence in centres and combines intervention in three planes: a democratic process for drawing up rules, a mediation and conflict resolution team, and a coexistence framework (Torrego Seijo, 2019). All of this is set out in the institution's coexistence plan.

a) *Democratic processes for drawing up classroom and institution rules:* these include setting positive rules, preventative measures to favour compliance with them, and remedies in the case of non-compliance. Democratic construction of rules requires people to draw them up, accept them, and respect them, as it is only through students'

involvement that rules can acquire the necessary moral force for their compliance and assimilation and for them to develop from a heteronomous moral code to an autonomous one (Da Rocha Costa, 2019). For this purpose, it is necessary to start from the individual and proximate (class rules) and move outwards to the global (institution rules), favouring their abstraction and generalisation, hence both forms are equally necessary. In this case, students participate through their representatives to ensure that the rules of the institution, which have been communicated and agreed on in the class groups, are approved in the School Council and are set down in the Internal Regulations and Coexistence Plan. It is very useful to have shared rules that act as a framework for guiding and regulating coexistence, thus preventing improvised, impulsive, and poorly-founded interventions that result in arbitrary or unfair decisions or abuses of power and so further exacerbate problems.

b) *Mediation team and conflict resolution* this combines two sub-programmes, the School Mediation Programme and the Student Coexistence Helpers Programme. These share the same conflict management philosophy but have their own specific ways of functioning. The former involves establishing a team — who can comprise students, teachers, and/or parents — to act as neutral mediators (Torrego Seijo, 2017) and help find solutions (Grau & García-Raga, 2017) in which everyone wins or is satisfied democratically through dialogue. According to García Raga et al. (2019, p. 106) "the pedagogical sense of mediation could be summarised in three educational aims:

solving conflicts, preventing violence, and personal strengthening".

The success of these programmes relies on: student mediators being volunteers and having a degree of autonomy (Mucientes, 2019); training, dissemination, the expansion of the mediation functions to the teaching-learning process; and the creation of support networks and the application of the social competences learnt at school (García-Raga et al., 2017). In addition, they are positively valued by the teachers as a conflict resolution tool since they reduce number of reports, reprimands, and disciplinary proceedings and prevent the appearance of new conflicts. Both the mediation programme and the systems of peer assistance help to develop social skills, foster moral values, and generate social support networks through which possible coexistence problems can be tackled (Ibarrola-García & Iriarte, 2012).

The Student Coexistence Helpers Programme (Torrego Seijo, 2018) involves selecting and training students so that they can detect various types of problems, including bullying, and support the victims, building confidence and providing companionship and solidarity to their peers. The results of its implementation reflect a reduction in disruptive behaviour with a fall in social isolation, theft, bullying, and vandalism in the view of students and teachers (Andrés & Gaymard, 2014).

c) *The coexistence protection framework:* this entails encouraging educational contexts that favour personal and collective development and a culture of conversation and dialogue (Grau & García-Raga, 2017). It combines interventions such as: 1) tuto-

rial activities, in which democratic conflict management can be taught and the use of protocols for intervention in cases of bullying incentivised (Luengo, 2019); 2) increasing the potential for a more inclusive and collaborative curriculum, using active methodologies that promote communication, positive interdependence, and social skills that favour coexistence (Montanero, 2019); and 3) promoting family participation, as the lower this is, the higher the level of violence among the student body (Reyes-Angona et al., 2018). All of this should be specified in the Coexistence Plan (Torrego Seijo, 2010).

Having defined the theoretical model, we will now review the evaluation instruments that make it possible to cover it. However, the results show that most questionnaires focus on identifying types of problems with violence (Burguera et al., 2017; Reyes-Angona et al., 2018), and very few evaluate the management of school coexistence. The instruments that partially approach the MIMCO, as they consider democratic, participatory, peaceful, and inclusive management of conflict, include the School Coexistence Questionnaire (Cuestionario de Convivencia Escolar) (Del Rey et al., 2009), the Coexistence Management Model (Modelo de Gestión de la Convivencia) of Ibarrola-García and Iriarte (2012), the School Life for Non-Violence Questionnaire (CENVI) (Muñoz et al., 2017), and the School Coexistence Questionnaire (Valdés et al., 2018). As for the evaluation of school mediation, García Raga et al. (2017) and Ibarrola-García and Iriarte (2012) have provided questionnaires.

The questionnaire we propose offers a positive and holistic overview of coexistence

in educational institutions. This questionnaire, which takes the MIMCO as its starting point, focuses on educational intervention and centres exclusively on its management. It comprises the following blocks: democratic processes for drawing up rules; mediation and conflict resolution teams (school mediation programme and student helpers); and a school coexistence protection framework.

2. Identifying the problem and the research aim

This background raises the following research problem: how can school coexistence in primary and secondary schools be evaluated in a valid and reliable way from the perspective of the students? Starting with this question, the aim of the present research is to construct and validate a questionnaire based on the MIMCO theoretical model of school coexistence (Torrego Seijo, 2010) that will make it possible to build knowledge about school coexistence from the perception of the students.

3. Method
3.1. Participants

From an estimated population of 343,418 students from year 6 of primary school and compulsory secondary education (ESO) in the Community of Madrid, 1169 from 34 educational institutions in this autonomous region of Spain participated in this research. Participants were selected through stratified (district, educational stage, and ownership of the school) random cluster (institutions) sampling. The confidence interval was 95%, with a 3% margin of error. These parameters

would require a sample of 1064 students, and so the sample size is fully appropriate.

With regards to the characteristics of the students who participated, there is an equal division by sex (50% male and female); 22.6% were at primary school and 77.4% secondary; 52.8% attended public schools, 39.7% private state-assisted schools and 7.5% private centres; finally, 51.1% were from the city of Madrid; 15.5% from the north district; 12.3% from the south of the Community; 8.4% from the east district; and 12.2% from the west of the Community.

3.2. Instrument

We started with an initial questionnaire with 21 items on school coexistence. The content of the questionnaire was subjected to expert evaluation by eight academics from three universities who specialise in the subject and in research methodology, as well as a representative of the Autonomous Region of Madrid. We modified some questions to improve their clarity, in line with the respondents to whom the instrument is directed, but we kept the initial 21 items (Table 1).

We organised the items in the questionnaire in accordance with the model's three theoretical blocks: Democratic processes for drawing up class and institution rules (items Q1 to Q5), mediation and conflict resolution team (items Q6 to Q10, which consider the Student Helpers Programme, and Q13 to Q18, which consider the mediation programme) and coexistence protection framework (items Q11 and Q12, dedicated to bullying and Q19 to Q21).

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TABLE 1. Questionnaire items.

State how often or how much the content of each of the questions below happens, in your opinion, using the scale provided	Never/not at all	Rarely/a little	Sometimes/a bit	Often/quite a lot	Always/a lot
1. Students and teachers take part in drawing up and revising class rules.					
2. Students, teachers, and families take part in drawing up and revising school rules.					
3. The corrections applied in the school make it possible to repair any harm done and correct behaviour.					
4. The selection of year delegates is done knowing the roles they will have to perform.					
5. During tutorial sessions, the coexistence of groups is analysed and evaluated.					

	YES	NO
6. Is there a Student Helpers Programme in the school?		

Only answer if you answered yes to the previous question	1	2	3	4	5
7. Evaluate from 1 to 5 the operation of the Student Helpers Programme.					

Only answer if there is a Student Helpers Programme in your school. State how often or how much the content of each of the questions below happens, in your opinion, using the scale provided	Never/not at all	Rarely/a little	Sometimes/a bit	Frequently/quite a lot	Always/a lot
8. The student helpers are attentive to the other students.					
9. The student helpers selected are good at giving help.					
10. The student helpers programme has been publicised among students and families.					

	YES	NO
11. Is there a protocol in the school to help students who suffer from bullying?		

Only answer if you answered yes to the previous question	1	2	3	4	5
12. Evaluate from 1 to 5 the operation of the bullying prevention programme.					

		YES	NO
13. Is there a school mediation programme in your school?			

Only answer if you answered yes to the previous question	1	2	3	4	5
14. Evaluate from 1 to 5 the functioning of the school mediation function.					

State how often or how much the content of each of the questions below happens, in your opinion, using the scale provided	Never/not at all	Rarely/a little	Sometimes/a bit	Frequently/quite a lot	Always/a lot
15. When students have a problem, they turn to the mediator classmates.					
16. The student mediators deal with coexistence problems.					
17. The student mediators selected are the right people.					
18. The mediation programme has been publicised among students and their families.					
19. I know the main actions listed in the school's coexistence plan.					
20. In general, the school promotes participation in the coexistence plan.					
21. In general, the atmosphere of relationships and coexistence between people in the school is good.					

Source: Own elaboration.

3.3. Procedure

After we had prepared the first questionnaire, expert analysis of it was done by email. We sent the initial instrument to the university academics as well as the representant of the School Council of the Autonomous Community of Madrid and after telling them about its purpose, we asked them to make any suggestions they felt were appropriate. Based on these, we modified the wording of some items to make them more appropriate for students from year 6 of primary education and compulsory secondary education.

We then administered the questionnaire, which had been validated by experts, to the student respondents, using a non-experimental, descriptive, and cross-sectional survey-type design. The phases in this stage of the research were as follows:

1. Contacting the management teams of the selected institutions to inform them of the research.
2. Asking the parents of the students to give informed consent, with guarantees of anonymity and confidentiality.
3. Administering the questionnaires to the students online, with the help of the teachers.
4. Administering paper copies of the questionnaires to complete the required sample size owing to the high drop-out rate.

5. The research team collected the completed questionnaires in person at the educational institutions.

6. Data analysis using the programs IBM SPSS, v. 24 and IBM SPSS Amos, v.21.

4. Analysis and results

Once the content validity of the questionnaire had been considered by the experts, we used the SPSS program to calculate the descriptive statistics of the items in the instrument and perform an exploratory factor analysis with the aim of starting to test the MIMCO empirically.

4.1. Descriptive statistics

Table 2 shows that, overall, school coexistence is medium-high (overall mean = 3.68) in the centres where we evaluated it. The valuations of the Student Helper Programme (Q7) and Student Mediators Programme (Q13) stand out, as does the suitability of the selected student helpers (Q9). In contrast, there should be more participation by students, teachers, and families in drawing-up and reviewing the centres' rules (Q2) and students should be better informed of the principal actions contained in the centre's Coexistence Plan (Q19).

TABLE 2. Descriptive statistics for the items in the questionnaire.

Ítems	N	Minimum	Maximum	Mean	Standard deviation
Total	1169	1.59	5	3.68	.453
Q1	1169	1	5	3.15	1.259
Q2	1169	1	5	2.89	1.284
Q3	1169	1	5	3.19	1.198
Q4	1169	1	5	3.61	1.237
Q5	1169	1	5	3.71	1.176
Q7	1169	1	5	4.03	.576
Q8	1169	1	5	3.90	.590
Q9	1169	1	5	4.00	.554
Q10	1169	1	5	3.12	.717
Q12	1169	1	5	3.98	.890
Q14	1169	1	5	4.03	.698
Q15	1169	1	5	3.05	.738
Q16	1169	1	5	3.84	.781
Q17	1169	1	5	3.90	.695
Q18	1169	1	5	3.83	.817
Q19	1169	1	5	2.97	1.210
Q20	1169	1	5	3.32	1.106
Q21	1169	1	5	3.73	.973

Source: Own elaboration.

TABLE 3. Correlation between observed variables.

	Q1	Q2	Q3	Q4	Q5	Q7	Q8	Q9	Q10	Q12	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21
Q1	1																	
Q2	.665	1																
Q3	.528	.521	1															
Q4	.259	.293	.361	1														
Q5	.410	.403	.416	.461	1													
Q7	.136	.085	.107	.157	.124	1												
Q8	.122	.088	.108	.166	.182	.446	1											
Q9	.096	.098	.158	.219	.164	.403	.591	1										
Q10	.131	.137	.156	.180	.181	.255	.340	.429	1									
Q12	.170	.175	.258	.183	.212	.178	.113	.157	.141	1								
Q14	.147	.111	.162	.154	.164	.297	.137	.173	.144	.332	1							
Q15	.229	.251	.262	.137	.232	.213	.188	.186	.181	.265	.412	1						
Q16	.136	.124	.173	.174	.163	.180	.181	.188	.190	.196	.407	.568	1					
Q17	.087	.100	.129	.182	.146	.227	.221	.346	.225	.173	.387	.427	.608	1				
Q18	.152	.142	.150	.154	.191	.163	.167	.17*	.261	.168	.321	.432	.595	.573	1			
Q19	.471	.472	.463	.369	.398	.175	.155	.153	.164	.214	.138	.263	.189	.116	.202	1		
Q20	.475	.461	.484	.414	.441	.196	.203	.179	.189	.224	.174	.241	.179	.119	.203	.668	1	
Q21	.347	.345	.430	.374	.410	.179	.196	.191	.116	.224	.177	.195	.197	.183	.169	.441	.504	1

Source: Own elaboration.

4.2. Exploratory factor analysis

Before studying the questionnaire's construct validity, we calculated Spearman's correlation coefficient between the items in the questionnaire to prevent multicollinearity issues. As Table 3 shows, bivariate correlations greater than .85 were not obtained in any cases, and so, in line with Kline (2005), we did not have to remove any items from the questionnaire owing to this criterion.

Next, we performed an exploratory factor analysis, using principal component analysis and the Varimax rotation. After performing the Kaiser-Meyer-Olkin test for sampling adequacy (.866) and Bartlett's sphericity test for statistical significance (.000), we obtained an explained variation of 59.82% for eigenvalues>1. This analysis included all items from the questionnaire except for 6, 11, and 13, as these were dichotomous. Table 4 shows the rotated component matrix ordered by size.

TABLE 4. Exploratory factor analysis. Rotated component matrix.

Items	Component			
	1	2	3	4
Q2	**.773**	.086	-.019	-.077
Q20	**.772**	.087	.131	.049
Q1	**.760**	.076	.013	-.024
Q19	**.755**	.119	.093	.003
Q3	**.727**	.097	.058	.132
Q5	**.644**	.109	.100	.150
Q21	**.617**	.085	.103	.257
Q4	**.543**	.072	.170	.155
Q16	.096	**.878**	.053	.084
Q17	.059	**.816**	.174	.080
Q18	.129	**.811**	.096	.033
Q15	.250	**.715**	.104	.162
Q9	.074	.094	**.838**	.068
Q8	.081	.069	**.813**	.003
Q7	.100	.064	**.648**	.342
Q10	.158	.180	**.632**	-.108
Q12	.219	.086	.057	**.794**
Q14	.080	.477	.074	**.622**

Source: Own elaboration.

As Table 4 shows, all of the factor loadings are greater than .5, reflecting a high saturation of items in the corresponding factors.

The first factor combines 8 items. In accordance with the MIMCO, this factor comprises the blocks: *Democratic processes for drawing up rules* (Q1, Q2, and Q3) and *coexistence protection framework* (Q4, Q5, Q19, Q20, and Q21). Item Q12 relating to the valuation of the programme for preventing bullying is missing. This should be in the first factor, included in the *coexistence protection framework* block. In fact, although this item saturates in the fourth factor, the next highest factor loading is found in the first (.219).

The second factor includes half of the items from the *conflict mediation and resolution team* block. These are the ones that refer to the *mediation programme* sub-block (Q15, Q16, Q17, and Q18). In accordance with the theoretical model we are testing, item Q14, which is in factor 4, should have saturated in this factor (valuation of the functioning of the mediation programme). However, the second highest factor loading for this item is found in factor 2 (.477).

The third factor comprises the items in the *mediation and resolution team* block, in other words, those relating to the *Student Helpers Programme* sub-block (Q7, Q8, Q9, and Q10).

Redistributing the two items from the fourth factor into factors 1 and 2, respectively, eliminates this component. In its place, in the interest of a closer approximation to the theoretical model that we wish to demonstrate empirically, we consider a subdivision of the items from the first factor, putting those that refer to *democratic processes for drawing up rules* into factor four (Q1, Q2, and Q3).

Combining our theoretical considerations and the results of the exploratory factor analysis gives the following factors in the configuration of the MIMCO.

- Factor 1: Coexistence protection framework.

- Factor 2: Student Mediators Programme.

- Factor 3: Student Helpers Programme.

- Factor 4: Democratic processes for drawing up rules.

4.3. Confirmatory factor analysis

We performed confirmatory factor analysis through structural equation modelling in the AMOS program to ascertain the construct validity of the questionnaire and ensure that its internal structure is appropriate. This type of analysis makes it possible to correct or corroborate the weak points from the exploratory factor analysis, leading a greater contrast of the hypotheses or objectives posed (Bollen, 1989).

In order not to reduce the initial sample, we replaced the missing values with the mean of each item. With regards to

outliers, Aguinis et al. (2013) state that "A pervasive view of outliers among substantive researchers is that outliers are 'problems' that must be 'fixed,' usually by removing particular cases from the analyses" (p. 280). Nonetheless, some studies claim that these values should be considered (O'Boyle & Aguinis, 2012). Therefore, as there is little agreement on atypical values in the methodological literature, we decided to include these as we regarded them as interesting, given that they can provide potentially valuable knowledge (J. Cohen et al., 2003; Mohrman & Lawler, 2012).

Graph 1 pictorially displays the correlation between the latent and observable variables, the measurement error of the latter, and the covariance between the four latent variables and between errors.

GRAPH 1. Structural equation modelling of the questionnaire to evaluate students' perception of school coexistence.
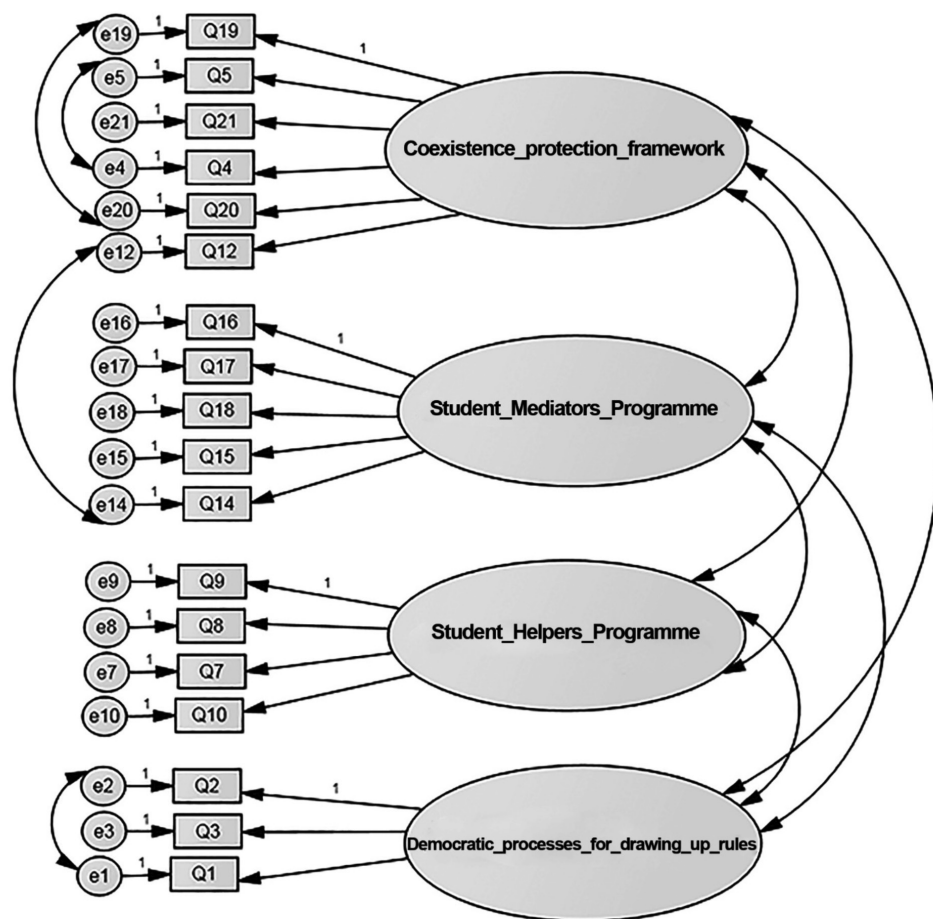
Source: Own elaboration.

We used the maximum likelihood estimation to calculate the model. Similarly, we tested for univariate normality by studying the skewness and kurtosis of the variables observed. All items fulfilled the criterion established by Aguinis, Gottfredson, and Joo (2013) for interpreting both statistics, as none of them exceeded a skew of l3l and a kurtosis between l8l and l20l (Table 5).

TABLE 5. Skew and kurtosis of the observed variables.

Variable	Minimum	Maximum	Skew	Critical ratio	Kurtosis	Critical ratio
Q10	1	5	.471	6.579	3.212	22.420
Q15	1	5	-.099	-1.376	2.808	19.594
Q4	1	5	-.721	-10.061	-.445	-3.109
Q14	1	5	-1.717	-23.968	6.050	42.221
Q8	1	5	-1.971	-27.518	7.134	49.787
Q9	1	5	-1.728	-24.120	8.432	58.850
Q7	1	5	-1.450	-20.237	6.852	47.824
Q16	1	5	-1.888	-26.356	4.662	32.539
Q18	1	5	-1.801	-25.133	3.869	26.999
Q17	1	5	-1.797	-25.088	5.570	38.872
Q12	1	5	-1.345	-18.773	2.433	16.979
Q2	1	5	-.011	-.147	-1.002	-6.992
Q1	1	5	-.163	-2.279	-.924	-6.446
Q20	1	5	-.236	-3.293	-.430	-3.003
Q19	1	5	-.003	-.039	-.771	-5.378
Q5	1	5	-.782	-10.910	-.235	-1.637
Q3	1	5	-.157	-2.190	-.784	-5.468
Q21	1	5	-.819	-11.430	.421	2.941

Source: Own elaboration.

Table 6 shows the regression coefficients (factor loadings) of the observable variables on the latent variables, the standard error (SE) and the critical ratio (CR), as well as the corresponding statistical significance (p). It also shows the standardised regression coefficients between these variables. As is apparent, all of the pairs are significant, where $\alpha = .01$. Similarly, all of the standardised regression coefficients easily exceed the value of .3 established by Cohen (1988) as the typical value for the effect size.

Table 7 shows the covariance coefficients between the latent variables and

TABLE 6. Regression coefficients and standardised regression coefficients between observable and latent variables.

Relationship between observable and latent variables		Regression coefficient				Standardised regression coefficient
		Estimates	SE	CR	p	Estimates
Q17	Student_Mediators	.805	.027	29.353	***	.778
Q16	Student_Mediators	1.000				.860
Q9	Student_Helpers	1.000				.796
Q10	Student_Helpers	.867	.054	16.011	***	.533
Q15	Student_Mediators	.781	.030	26.213	***	.711
Q18	Student_Mediators	.905	.033	27.759	***	.744
Q8	Student_Helpers	.981	.048	20.450	***	.731
Q7	Student_Helpers	.763	.044	17.410	***	.583
Q14	Student_Mediators	.512	.029	17.484	***	.499
Q20	Coexistence_Framework	.968	.036	26.787	***	.735
Q19	Coexistence_Framework	1.000				.694
Q12	Coexistence_Framework	.343	.034	10.206	***	.325
Q4	Coexistence_Framework	.796	.050	15.896	***	.540
Q21	Coexistence_Framework	.757	.040	18.934	***	.653
Q5	Coexistence_Framework	.867	.048	18.003	***	.619
Q3	Drawing up_Rules	1.022	.051	20.203	***	.762
Q2	Drawing up_Rules	1.000				.696
Q1	Drawing up_Rules	.981	.039	25.459	***	.696

Source: Own elaboration.

also between the detected errors, as well as the corresponding standard error (SE), critical ratio (C.R), and statistical significance (p). It also shows the correlation coefficients between the latent variables and between errors. As can be seen, all of the pairs are significant, for a level of statistical significance of $\alpha = .01$. Similarly, the correlation coefficients, approximately achieved or exceeded the value of .3 determined by Cohen (1988) as the benchmark, with the exception of those relating to the relationship between the Student Helpers Programme and drawing up rules and the relationship between errors e5-e4.

We use three different types of index to evaluate the fit of the model, in line

TABLE 7. Covariances and correlation between latent variables and between errors.

Relationship between latent variables		Covariances				Correlation
		Est.	SE	CR	P	Est.
Student_Mediators	Student_Helpers	.092	.011	8.356	***	.312
Student_Mediators	Coexistence_ Framework	.213	.022	9.590	***	.379
Student_Helpers	Coexistence_ Framework	.127	.015	8.412	***	.345
Coexistence_ Framework	Drawing up_Rules	.664	.045	14.759	***	.886
Student_Mediators	Drawing up_Rules	.175	.023	7.531	***	.292
Student_Helpers	Drawing up_Rules	.090	.016	5.743	***	.229
e5	e4	.192	.033	5.791	***	.200
e1	e2	.308	.038	8.091	***	.370
e19	e20	.227	.029	7.916	***	.349
e12	e14	.130	.016	8.334	***	.259

Source: Own elaboration.

with the recommendations of authors such as Hu and Bentler (1998) to use more than one statistic for this purpose: normed chi-squared or the ratio of chi-squared over degrees of freedom (CMIN/DF), which measures goodness of fit and parsimony; the comparative fit index (CFI), which is one of the incremental fit indices; and the root mean square error of approximation (RMSEA), which is a measurement of absolute goodness of fit. Table 8 shows the values obtained from these indices:

TABLE 8. Goodness of fit statistics.

Index	Value
CMIN/DF	4.399
CFI	.947
RMSEA	.054

Source: Own elaboration.

With regards to the normed chi-squared statistic, the values established by the literature on this matter are between 1 and 5 (Hair et al., 2008; Lévy Mangin & Varela Mallou, 2003; Marsh & Hocevar, 1985; Wheaton et al., 1977). The comparative fit index must have a value of between 0 and 1 (Lévy Mangin & Varela Mallou, 2003; McDonald & Marsh, 1990; Marsh & Hocevar, 1985), and a value of at least .9 is recommended (Cupani, 2012). The root mean square error of approximation can, according to several authors, have values lower than .08 (Browne & Cudeck, 1993; Hair et al., 2008; Steiger & Lind, 1980), although more demanding authors specify values of up to .05 (Lévy Mangin & Varela Mallou, 2003).

Considering the results shown in Table 8, we can state that the model,

including the covariance between the errors shown, displays reasonable indices of fit between the theoretical structures and the empirical data obtained, and so the construct validity of the questionnaire is confirmed.

4.4. Reliability of the questionnaire

We again used the SPSS statistics software to calculate the reliability of the questionnaire. We calculated this psychometric characteristic with the internal consistency method, using Cronbach's alpha. Table 9 displays the respective reliability indices, both overall and by blocks. High internal consistency of the instrument is observed, with all cases exceeding the minimum value of .7, a requirement for the instrument to be considered reliable (DeVellis, 2003).

TABLE 9. Reliability of the questionnaire.

Block	Cronbach's alpha coefficient
Total	.859
Block 1: Coexistence protection framework	.743
Block 2: Student Mediators Programme	.844
Block 3: Student Helpers Programme	.737
Block 4: Democratic processes for drawing up rules	.805

Source: Own elaboration.

All of the items fulfilled the corrected item-total correlation criterion, and so it was not necessary to eliminate any of them.

5. Discussion and conclusions

Handling school coexistence is one of the most important challenges currently facing schools, teachers, and families (BOCM, 2019; OECD, 2019). To help improve it, MIMCO offers an integrated focus centred on participatory, inclusive, and democratic interventions that distinguishes it from others. However, despite being an established model, there was hitherto no instrument to evaluate reliably the dimensions that comprise it, as confirmed in the literature review we

performed. Constructing and validating an instrument centred on this model that is of use for identifying areas of coexistence intervention that have been put in place in educational institutions, is of administrative and methodological value.

This research has demonstrated the validity and reliability of a 21-item questionnaire that makes it possible to evaluate students' perception of school coexistence, providing highly enriching information about democratic processes in the development of class and institution-level rules, mediation teams, and conflict resolution, as well as the framework for protecting school coexistence. Although the MIMCO theoretical model initially comprised these three dimensions, after the exploratory

and confirmatory factor analyses, it was split into four factors, subdividing the mediation and student helpers programmes into two different but related dimensions.

Factor 1, the coexistence protection framework, provides information about the peaceful conflict resolution through tutorial action (García Raga et al., 2019), bullying protocols (Luengo, 2019), a cooperative curriculum for coexistence (Burguera et al., 2017), and family participation (Reyes-Angona et al., 2018). All of this contributes to personal strengthening, prevention of violence, and conflict resolution (García Raga et al., 2019) and results in improved coexistence. In this factor, measurement error covariances relating to items Q4-Q5 and Q19-Q20 can be seen. Firstly, responsible selection of delegates who understand the roles they have to perform (Q4) is one specific aspect of rules-based democratisation that fits into the broader framework of tutorials. However, it is not the only one as, according to Arribas and Roura (2010), other aspects of coexistence can be covered during them (Q5). Therefore, knowing how much tutoring is used to improve coexistence is one aspect of the questionnaire that is essential to maintain (Torrego Seijo, 2019). More complex is the line of differentiation of the item referring to knowledge of actions in the Coexistence Plan (Q19) and participation in it (Q20), since in the Spanish setting, although different areas of participation are considered, it is often conceived as unitary, and so differs greatly from Epstein's graded model (2001) or that presented in the State School Council (2014), to which we subscribe.

In contrast, in the theoretical model set out here, the student mediators programme (factor 2) and Student Helpers Programme (factor 3) are within the same dimension (mediation and conflict resolution team). However, in the factor analysis they are separated into two factors, which is in line with the results found in other research. Consequently, these are two complementary programmes (Usó et al., 2009), but there are very few studies in which they have been implemented simultaneously, something corroborated by Torrego Seijo et al. (2019) where they confirm that more centres use mediation programmes than student helper programmes in the Community of Madrid. Similarly, experiences focussing on mediation (Martínez, 2018; Viana Orta, 2019) and others on student helpers (Andrés & Barrios, 2006; Gómez, 2018) have been found separately.

We confirmed a measurement error covariance between factors 1 and 2 relating to items Q12 (bullying prevention programme) and Q14 (mediation programme). In the exploratory factor analysis, these items saturated exclusively in one particular factor relating to the evaluation of the two programmes. Nonetheless, the former was included in the coexistence protection framework (factor 1), as it refers to the protocols against bullying established in the centres as a procedure for responding to situations of bullying between peers (Luengo, 2019; De Vicente, 2010). These are not disciplinary procedures, although they can culminate with the opening of disciplinary action against the offending student; instead they involve an invitation to clarify and resolve events and design ac-

tion plans and educational measures. Having a protocol means that when confronting problems that create much distress in educational communities, these situations are made explicit and tackled in an ordered and systematic way. Likewise, item Q14 was included in factor 2 which refers to the mediation programme, as the legislation in force (BOCM, 2019) states that the coexistence committee will evaluate the situation of harmonious life in the centre and the results of applying the rules for said coexistence. Therefore, it is an important aspect to take into account for inclusion in these centre evaluations. However, Viana Orta (2019) analyses the legislation in all of Spain's autonomous regions and concludes that the two that were pioneers in mediation — the Basque Country and Madrid — do not explicitly mention this programme in their legislation, while many other autonomous regions do, and so it is necessary to include evaluation of them.

Finally, in factor 4, democratic processes for drawing up rules, we found a measurement error covariance using SEM in relation to items Q1 and Q2, which are apparently similar, but allude to two different levels of the construction of rules. The first level is that of the classroom, where efforts are made to raise students' awareness (Fernández, 2017) and make the process of drawing them up, agreeing on them, and adopting them more comprehensible for students. The second level, that of the institution, is much more complex as for the democratic development of its rules, it is necessary for it to have organised structures of delegates who participate in student representative

committees and in the School Council to approve them. According to Decree 32/2019, schools must draw up their own coexistence plans and institution rules, including all of the educational community: "The student body's participation in the drawing up and following of rules of coexistence shall facilitate the development of their moral autonomy" (sec. 14, BOCM, 2019).

The results of this research, although it starts from a broad sample, were extracted from a single autonomous region, and so, although they can be extrapolated to similar populations, this is a limitation of the study. It would be interesting to continue this research and explore similarities and differences in the results with other populations.

References

Aguinis, H., Gottfredson, R. K., & Joo, H. (2013). Best-Practice Recommendations for Defining, Identifying, and Handling Outliers. *Organizational Research Methods, 16* (2), 270-301. https://doi.org/10.1177/1094428112470848

Andrés, S., & Gaymard, S. (2014). The Perception of School Climate in Two Secondary Schools During the Implementation of a Peer Support Program. *Electronic Journal of Research in Educational Psychology*, *12* (2), 509-540.

Andrés, S., & Barrios, A. (2006). El modelo del alumno ayudante a discusión: la opinión de los alumnos participantes y sus beneficiarios [The student assistant model under discussion: the views of the participating students and their beneficiaries]. *Electronic Journal of Research in Education Psychology*, *4* (9), 311-332.

Arribas, J. M., & Roura, A. (2010). La Formación de delegados [Training of delegates]. In J. C. Torrego Seijo (Coord.), *El Plan de Convivencia.*

Fundamentos y recursos para su elaboración y desarrollo (pp. 397-425). Alianza Editorial.

Bollen, K. A. (1989). *Structural equations with latent variables*. John Wiley et Sons.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In Bollen, K. A. & Long, J. S. (Eds.), *Testing structural equation models* (pp. 136-162). Sage.

Burguera, J. L., Pérez-Herrero, M., & Vega, E. (2017). Study on coexistence and conflicts in students of Secondary Education in a center of Asturias (Spain). In *Proceedings of the 5th International Conference on Technological Ecosystems for Enhancing Multiculturality (TEEM 2017)* (Article 22, pp. 1-9). Association for Computing Machinery. https://doi.org/10.1145/3144826.3145369

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. Academic Press.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*. Lawrence Erlbaum.

Cupani, M. (2012). Análisis de ecuaciones estructurales: conceptos, etapas de desarrollo y un ejemplo de aplicación [Structural equation analysis: Concepts, development steps and an example of application]. *Revista Tesis, 1,* 186-199.

Da Rocha Costa, A. C. (2019). An agent-oriented account of Piaget's theory of interactional morality. *AI & SOCIETY, 34* (3), 649-676.

Decree 32/2019, of 9 April, of the Governing Council, which establishes the regulatory framework for coexistence in schools in the Region of Madrid. *Official Gazette of the Community of Madrid, 89*, 15 April 2019, pp. 10-38. https://bit.ly/3872Rky

Del Rey, R., Ruiz, R. O., & Feria, I. (2009). Convivencia escolar: fortaleza de la comunidad educativa y protección ante la conflictividad escolar [School coexistence: Strength of the educational community and protection from school conflicts]. *Revista Interuniversitaria de Formación del Profesorado, 66*, 159-180.

De Vellis, R. F. (2003). *Scale development: Theory and applications*. Sage.

De Vicente, J. (2010). El maltrato entre iguales: prevención e intervención en los centros educativos [Peer on peer abuse: prevention and intervention in schools]. In J. C. Torrego Seijó (Coord.), *El Plan de Convivencia. Fundamen-tos y recursos para su elaboración y desarrollo* (pp. 347-395). Alianza Editorial.

Epstein, J. L. (2001). *School, family and community partnerships. Preparing educators and improving schools*. West-View Press.

Eurydice España rediE (n.d.). *Marco estratégico Educación y Formación 2020 (ET2020) [Education and Training Strategic Framework ET2020]*. Ministerio de Educación y Formación Profesional. https://bit.ly/3fSpi1F

Fernández, I. (2017). *Prevención de la violencia y resolución de conflictos: el clima escolar como factor de calidad [Violence prevention and conflict resolution: school climate as a quality factor]*. Narcea Ediciones.

García-Raga, L., Bo Bonet, R. M., & Boqué, M. C. (2017). Percepción del alumnado de Educación Secundaria sobre la mediación escolar en Castellón y Valencia [Perception of Secondary Education students about school mediation in Castellon and Valencia]. *Revista Complutense de Educación, 28* (2), 537-554. http://dx.doi.org/10.5209/rev_RCED.2017.v28.n2.49581

García Raga, L., Boqué, M. C., & Grau, R. (2019). Valoración de la mediación escolar a partir de la opinión de alumnado de educación secundaria de Castellón, Valencia y Alicante (España) [Assessment of peer mediation based on high school students' views in Castellon, Valencia and Alicante (Spain)]. *Profesorado: Revista de Curriculum y Formación del Profesorado, 23* (1), 103-119. https://doi.org/10.30827/profesorado.v23i1.9146

Gómez, M. J. (2018). Implantación y desarrollo del Programa de Alumnos Ayudantes en el IES San Juan Bautista [Implementation and development of the Student Helpers Programme in San Juan Bautista Secondary School]. *Padres y Maestros/Journal of Parents and Teachers*, *373*, 46-50.

Grau, R., & García-Raga, L. (2017). Aprender a vivir juntos: un desafío para las escuelas ubicadas en contextos de vulnerabilidad social [Learning to live together: a challenge for schools located in contexts of social vulnerability]. *Revista de Educación para la Paz, 14* (2), 137-154. https://doi.org/10.1080/17400201.2017.1291417

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2008). *Análisis multivariante [Multivariate analysis]*. Prentice Hall.

Hu, L. T., & Bentler, P. M. (1998). Fit índices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods, 3*, 424-453.

Ibarrola-García, S., & Iriarte, C. (2012). *La convivencia escolar en positivo: mediación y resolución autónoma de conflictos [Positive coexistence at school: mediation and autonomous conflict resolution]*. Pirámide.

Kline, R. B. (2005). *Principles and practice of structural equation modelling*. Guilford.

Lévy Mangin, J. P., & Varela Mallou, J. (2003). *Análisis multivariante para Ciencias Sociales [Multivariate Analysis for Social Sciences]*. Pearson-Prentice Hall.

Luengo, J. A. (2019). *El acoso escolar y la convivencia en los centros educativos [Bullying and coexistence in educational centres]*. Consejo Escolar de la Comunidad de Madrid.

Marsh, H. W., & Hocevar, D. (1985). Application of confirmatory factor analysis to the study of self-concept: First- and higher order factor models and their invariance across groups. *Psychological Bulletin, 97* (3), 562-582.

Martínez, M. (2018). La formación en convivencia: papel de la mediación en la solución de conflictos. *Educación y Humanismo, 20* (35), 127-142.

McDonald, R. P., & Marsh, H. W. (1990). Choosing a multivariate model: Noncentrality and goodness of fit. *Psychological Bulletin, 107*, 247-255.

Ministerio de Educación, Cultura y Deporte (2017). *Plan estratégico de convivencia escolar: confiar en la fuerza de la Educación [Strategic plan for school coexistence: Relying on the strength of education]*. Ministerio de Educación, Cultura y Deporte. https://bit.ly/3e8Q2du

Mohrman, S. A., & Lawler, E. E. (2012). Generating knowledge that drives change. *Academy of Management Perspectives, 26*, 41-5.

Montanero, M. (2019). Métodos pedagógicos emergentes para un nuevo siglo ¿Qué hay realmente de innovación? [Pedagogic methods for a new century. Are they really innovative?] *Teoría de la Educación. Revista Interuniversitaria, 31* (1), 5-34.

Mucientes, B. (2019). *Mediación entre iguales como herramienta de gestión de los conflictos: programa de formación de alumnos mediadores en Educación Secundaria Obligatoria [Peer mediation as a conflict management tool: A training programme for student mediators in compulsory secondary education]* [Master's tesis, Universidad de Valladolid]. Document Repository of the Universidad de Valladolid. http://uvadoc.uva.es/handle/10324/39872

Muñoz, F., Becerra, S., & Riquelme, E. (2017). Elaboración y validación psicométrica del cuestionario de convivencia escolar para la no violencia (CENVI) [Development and psychometric validation of the questionnaire of school life for nonviolence (CENVI)]. *Estudios pedagógicos (Valdivia), 43* (3), 205-223.

O'Boyle, E., & Aguinis, H. (2012). The best and the rest: Revisiting the norm of normality of individual performance. *Personnel Psychology, 65*, 79-119.

OCDE (2018). *Programa para la evaluación internacional de estudiantes PISA. Resultados de PISA 2018 [Programme for international student assessment PISA. PISA 2018 results]*. https://www.oecd.org/pisa/publications/PISA2018_CN_esp_ESP.pdf

OECD (2019). *PISA 2018 results (volume III): What school life means for students' lives*. PISA, OECD Publishing. https://doi.org/10.1787/acd78851-en

Organic Law 8/2013, of 9 December, for the improvement of educational quality. *Spanish Official State Gazette, 295*, 10 December 2013, pages 97858 to 97921. https://www.boe.es/eli/es/lo/2013/12/09/8

Reyes-Angona, S., Gudiño, S., & Fernández-Cárdenas, J. M. (2018). Violencia escolar en Michoacán y Nuevo León, un diagnóstico situado para promover escuelas seguras en educación básica. *Revista Electrónica de Investigación Educativa, 20* (2), 46-58.

Spanish Constitution (1978). Article 27. *Spanish Official Gazette, 311*, 29 December 1978, pages 29313 to 29424. https://www.boe.es/eli/es/c/1978/12/27/(1)

State School Council (2014). *La participación de las familias en la educación escolar [Family participation in school Education]*. Ministerio de Educación, Cultura y Deporte.

Steiger, J. H., & Lind, J. C. (1980). *Statistically based tests for the number of common factors*. Psychometric Society.

Torrego Seijo, J. C. (Coord.) (2010). *El Plan de Convivencia. Fundamentos y recursos para su elaboración y desarrollo [The Coexistence Plan. Fundamentals and resources for its elaboration and development]*. Alianza Editorial.

Torrego Seijo, J. C. (Coord.) (2017). *Mediación de conflictos en instituciones educativas. Manual para la formación de mediadores [Conflict mediation in educational institutions. Manual for the training of mediators].* Narcea.

Torrego Seijo, J. C. (Coord.) (2018). *La ayuda entre iguales para mejorar la convivencia escolar. Manual para la formación de alumnos ayudantes [Peer help to improve school coexistence. Manual for the training of student helpers].* Narcea.

Torrego Seijo, J. C. (Coord.) (2019). *La participación en los centros educativos de la Comunidad de Madrid. La participación de las familias y el alumnado [Participation in educational centres in the Community of Madrid. Family and student participation].* Consejo Escolar. Consejería de Educación e investigación.

Usó, I., Adrián, J. E., & Villanueva, L. (2009). La convivencia en las aulas de secundaria: programas alumno ayudante y alumno mediador [Coexistence in secondary school classrooms: Student helper and student mediator programmes]. *Fòrum de Recerca, 15,* 249-260.

Valdés, R., López, V., & Chaparro, A. A. (2018). Convivencia escolar: adaptación y validación de un instrumento mexicano en Chile [Coexistence in schools: Adaptation and validation of a Mexican instrument in Chile]. *Revista Electrónica de Investigación Educativa, 20* (3), 80-91.

Wheaton, B., Muthén, B., Alwin, D. F., & Summers, G. F. (1977). Assessing reliability and stability in panel models. In Heise, D. R. (Ed.), *Sociological methodology* (pp. 84-136). Jossey-Bass. http://dx.doi.org/10.2307/270754

Viana Orta, M. I. (2019). 25 años de Mediación Escolar en España: 1994-2019. Una cronología de su llegada [25 years of school mediation in Spain: 1994-2019. A chronology of his arrival]. *Cuestiones Pedagógicas, 27*, 11-22.

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Adolescent cyberbullies and problematic internet use: The protective role of core self-evaluations

Adolescentes ciberacosadores y uso problemático de Internet: el papel protector de las autovaloraciones centrales

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Abstract:

Cyberbullying is a growing problem in contemporary society. Although the risk factors are widely studied, there has been little research focussed on the personal resources that might help prevent or reduce it. This study aimed to analyse whether core self-evaluations can moderate the relationship between problematic internet use and cyberbullying. The participants were 456 cyberbullies aged between 12 and 18 (mean age: 15.01; $SD = 1.44$), extracted from an initial sample of 2085 young people. We used three self-report measures as measurement instruments (cyberbullying perpetration: ECIP-Q; problematic internet use: IAT; core self-evaluations: CSE). The results show that cyberbullying perpetration relates positively to problematic internet use and negatively to CSE. The moderation analysis highlighted the protective role of CSE only when the level of problematic internet use was not very high. These results highlight the need to implement measures at early ages to prevent problematic internet use and cyberbullying in which working on positive personal resources is of key importance. It concludes that this problem requires comprehensive models that are broader than those currently existing, which in addition to risk factors take into consideration personal, familiar, and contextual factors that can provide protection.

Keywords: cyberbullying, adolescence, risk factors, digital settings, protective factors, emotional education.

Resumen:

La ciberperpetración es un problema creciente de la sociedad actual, pero, aunque los factores de riesgo son ampliamente estudiados, son pocas las investigaciones centradas en los recursos personales que podrían favorecer su prevención o reducción. El objetivo de este estudio fue analizar si las autovaloraciones centrales pueden moderar la relación entre uso problemático de Internet y ciberperpetración. Los participantes fueron 456 ciberacosadores de entre 12 y 18 años (edad media: 15.01; DT = 1.44), extraídos de una muestra inicial de 2085 jóvenes. Como instrumentos de medida se utilizaron tres medidas de autoinforme (ciberperpetracion: ECIP-Q; uso problemático de Internet: IAT; autovaloraciones centrales: CSE). Los resultados revelan que la ciberperpetración se relacionó positivamente con el uso problemático de Internet y negativamente con las CSE. El análisis de moderación puso de manifiesto el papel protector de las CSE únicamente cuando el nivel de uso problemático de Internet no es muy elevado. Estos resultados apuntan a la necesidad de implementar actuaciones preventivas del uso problemático de Internet y ciberacoso en edades tempranas, en las que el trabajo sobre los recursos personales positivos sean la clave. Se concluye que esta problemática requiere de modelos comprensivos más amplios que los existentes hasta el momento en los que, junto a los factores de vulnerabilidad, se tomen en consideración factores personales, familiares y contextuales que puedan actuar como protectores.

Descriptores: ciberacoso, adolescencia, factores de riesgo, entornos digitales, factores protectores, educación emocional.

1. Introduction

From the field of positive psychology, there is a growing interest in identifying the variables that influence psychosocial well-being and mental health in adolescence (Bisquerra y Hernández, 2017), especially in situations of high emotional impact that jeopardise psychological adjustment during this stage, which is already conflictive or stressful in itself (Wray-Lake et al., 2016).

One adverse situation that adolescents now face is cyberbullying. This is defined as aggression performed intentionally using information and communication technology (ICT) with the aim of causing harm to a peer who cannot easily defend him or herself (Kowalski et al., 2019; Smith, 2015). The greatest vulnerability is observed between the ages of 13 and 14 due to the importance that aspects such as online identity and reputation acquire (Garmendia et al., 2019). Although the conceptualisation of cyberbullying is constantly under construction owing to the rapid changes in the popularity of the

digital media and/or platforms through which it can be carried out (Barlett et al., 2020), the numerous forms it adopts can mainly be put into two groups owing to their frequency: verbal aggressions (e.g. posting and/or sending hostile, harmful, or threatening messages, provocation, blackmail, etc.) and relational aggressions (e.g. spreading rumours, lies, or compromising information about victims to humiliate, ridicule, or isolate them) (Herrera-López et al., 2017; Savage & Tokunaga, 2017). The way each episode of cyberbullying occurs and spreads online generates a significant psychological and social impact in the short and long term in all of those involved (Alonso & Romero, 2020; Estévez et al., 2019).

Accordingly, there is a need to know what leads an individual to become a cyberbully, with cyberbullying perpetration classed as the practice of these intimidatory, violent, and/or abusive behaviours against another person in the virtual space either synchronously or asynchronously (Astor y Benbenishty, 2018). Understanding cyberbullying perpetration involves jointly considering risk factors and protective factors, as in this way prevention and intervention actions when encountering this phenomenon can be effectively planned.

With regards to risk factors, many works have tried to identify the individual and personality factors that result in a predisposition towards developing cyberbullying perpetration behaviours. The results of these studies have been collected in a variety of meta-analyses

among which traditional bullying and prior cyberbullying, use of the internet, and beliefs about aggression stand out as the variables with the greatest predictive value (Chen et al., 2017; Guo, 2016; Kowalski et al., 2014). Other less prominent factors that also have significant explanatory force are self-esteem (Palermiti et al., 2017), emotional stability and neuroticism (Xiao et al., 2019), and self-control (Peterson & Densley, 2017). Focussing on one of the most researched factors — internet use — academic literature shows that variables such as frequency and time of exposure, as well as problematic use of online resources, predict cyberbullying perpetration (Martínez-Ferrer et al., 2018; Yudes et al., 2020). An individual is considered to have problematic use when it is excessive, compulsive, or uncontrolled (Caplan, 2010), resulting in a strong negative impact on psychological well-being and adjustment (Machimbarrena et al., 2019). Problematic internet use can cause altered emotional states, internalising problems (e.g., anxiety, depression, low self-esteem), and can interfere in academic and family life (Casaló & Escario, 2019; Vila et al., 2018). All of this — the strong predictive relationship with cyberbullying and the consequences it creates — has resulted in study of personality traits that might influence the appropriate management of the use of ICT and/or problems deriving from it at early ages (Wilmer & Chein, 2016). It has been established that prior personal conditions such as negative affect (Müller et al., 2017), low self-esteem, and hostility (Fumero et al., 2018), or maladjustment

in the ability to manage stress and cognitive impulsiveness (De la Villa y Fernández, 2018) predispose people to problematic internet use (Rial el al., 2018), and with it, to worse mental health (Aznar et al., 2020). The data also show the relationship with interpersonal factors such as problems between peers, and inefficacy in the expression of communicative and relational skills (Pedrero et al., 2018). In general, problematic internet use relates to low subjective well-being (Casale et al., 2015) and less satisfaction with life (Arrivillaga et al., 2020).

With regards to protective factors, research has mainly concentrated on family and contextual variables that could prevent this problem and its consequences, with few studies focussing on understanding the psychological factors at play. In recent years, one personality construct that has been the centre of interest is core self-evaluations (CSE), widely studied in the area of work for their influence on life satisfaction (He et al., 2014). CSE represent the positive and negative valuations that people make of themselves, their competences, and their capacities. This higher order construct comprises four personality traits that are well-established in the academic literature and are closely related conceptually: self-esteem, general self-efficacy, locus of control, and emotional stability (neuroticism) (Judge et al., 2003). Positive CSE imply high self-esteem and generalised self-efficacy, low neuroticism, and internal locus of control. Consequently, we could say that people with higher CSE scores display a good psychological adjustment and emotional stability (Jud-

ge et al., 2003; Rey et al., 2012). In essence, and although studies with adolescents are still rare, this construct is regarded as being strongly related to resilience (Fínez & Morán, 2017), and young people with higher CSE scores are found to handle adverse situations better (Elliott et al., 2013), also experiencing lower levels of stress, extreme emotions, and physical exhaustion (Kammeyer-Mueller et al., 2009). Therefore, it is suggested that CSE are an important predictor of behaviour (Judge et al., 2003). Indeed, recent results have underlined the protective role they play with regards to problematic internet use. Although few studies provide direct evidence for this relationship, its mediating role has been explored through other personal or family variables. The literature shows that interpersonal relationships predict internet addiction, but CSE seem to be a very important mediating variable in this relationship (Xinyu, 2017). Similarly, their mediating role has been established in the relationship between shyness, which is a predictor variable of problematic internet use, and life satisfaction (Ye et al., 2019). In another related line of research, a greater tendency to develop pathological online gaming has been observed in young people who experience more rejection by their parents at an early age, and so in consequence have developed more negative CSE (Bussone et al., 2020).

Furthermore, there are data based on analysing the different components of CSE separately, and the severity of problematic internet use has been associated with lower self-esteem and self-control in young people aged between 11 and 20 (Mei

et al., 2016) and with greater neuroticism (Xiao et al., 2019). In contrast, greater self-efficacy has been observed in adolescents who display spontaneous remission of this problematic use (Wartberg & Lindenberg, 2020).

Taking the above into account, we designed this study to answer questions about the role of CSE in the development of risk behaviours strongly linked to cyberbullying perpetration behaviours. The aim was: a) to examine the relationship between CSE, problematic internet use, and cyberbullying perpetration in a sample of Spanish adolescent cyberbullies, and more specifically, b) to determine whether CSE moderate the influence of problematic internet use on cyberbullying perpetration.

Based on the existing evidence, we start from the hypothesis that problematic internet use will have a positive correlation with cyberbullying perpetration and a negative correlation with CSE, and so, higher CSE scores will be able to moderate the effect of problematic internet use on involvement in cyberbullying perpetration. So, just as we have seen that certain personality traits entail greater vulnerability to developing problematic internet use and with-it cyberbullying behaviour, we expect to find that the ability to feel in control of one's life and that one can manage one's surroundings, or having higher self-esteem could be key to protecting against this maladaptive development.

More knowledge of the factors that can determine the appearance of aggressive behaviours in virtual settings will foster, on the one hand, the development of more effective coping strategies and, on the other hand, greater precision when setting objectives for educational programmes aimed at preventing the appearance of this problem that affects young people all over the world.

2. Method
2.1. Participants

In this study, 2085 adolescents aged between 12 and 18 participated. From this sample, we selected those cases that could be labelled with the role of cyberbully (Elipe et al., 2017). The final sample comprised 456 bullies (21.9% of the initial sample), with a mean age of 15.01 ($SD = 1.44$), 51.1% of them being girls. At the time of the study, all of the participants were studying compulsory secondary education or the Spanish Baccalaureate at six schools in the province of Málaga (Spain).

2.2. Instruments

The instruments selected for the evaluation were self-report measures, with the necessary psychometric properties of reliability and validity.

- *European Cyberbullying Intervention Project Questionnaire* (ECIP-Q) (Del Rey et al., 2015; Ortega et al., 2016). This questionnaire comprises 22 items for evaluating cyberbullying. In this study, we only used the 11 items referring to cyberbullying perpetration. The participants respond to each item with how often they had participated in the behaviour mentioned in the last 2

months in accordance with a Likert-type scale (0 = never; 1 = once or twice; 2 = once or twice a month; 3 = about once a week; 4 = more than once a week) (sample item: "*I have posted compromising videos or photos of someone on the internet, social media or WhatsApp*"). According to the classification by Elipe et al. (2017), answering 0 and/ or 1 to all of the items would place the participant in the role of non-aggressor or not involved in cyberbullying, while answering 4 on at least one of the items would classify that individual as a serious aggressor. The rest would be classed as occasional aggressors. The Cronbach's alpha reliability index in this study was $\alpha = 0.70$.

- *Internet Addiction Test* (IAT) (Young, 1998). To evaluate the impact of internet use on social interactions and everyday life, we used the Spanish version (Puerta-Cortés et al., 2012), which comprises 20 items (sample item: "*How often do your grades or schoolwork suffer because of the amount of time you spend online?*"). This is evaluated using a Likert-type scale (0 = never/5 = always). Scores greater than 50 are indicative of problematic use. The internal consistency value in this study was satisfactory ($\alpha = 0.83$).

- *Core Self-Evaluations Scale* (CSES) (Judge et al., 2003). This scale includes 12 items (6 of which were scored normally and 6 reverse scored; sample item: «*I am capable of coping with most of my problems*»), scored on a Likert-type scale (1 = strongly disa-

gree/5 = strongly agree). The sum of the items gives an overall score for this construct. The higher this score, the better or more positive the individual's self-evaluation. This scale has good psychometric properties with a Spanish population (Rey et al., 2012; Rey et al., 2016). In our study, the Cronbach's alpha value obtained was 0.71.

2.3. Procedure

This is a descriptive, cross-sectional study. Before collecting the data, we contacted the centres and gave a brief explanation of the objectives of the research. Once we had established which centres were participating, we administered the questionnaires in hard copy to the participants along with instructions and information about the anonymity and confidentiality of the data. Administering the questionnaires took one hour. The study met the required ethical criteria for research conducted with people (ethics committee of the Universidad de Málaga).

2.4. Data analysis

We carried out statistical analysis of the data using SPSS 25.0 (IBP Corp, 2010). Firstly, to examine the variables measured we performed descriptive analyses to obtain means, standard deviations, and Pearson correlation coefficients. We tested the difference in means (Student's *t* for independent samples) to examine potential differences between occasional and severe cyberbullies. Next, we performed a moderation analysis to examine the role of CSE in the relationship between problematic internet use and cyberbullying perpetration. To do this, we used the PROCESS 3.4

(Hayes, 2018) extension for SPSS, using the bootstrapping process with 10,000 repetitions to determine whether the effect of the moderator is different from zero through the 95% confidence intervals.

3. Results

3.1. Descriptive and correlation analyses

We first calculated the percentage of occasional and severe cyberbullies in the final sample ($n = 456$). Of the sample, 74.3% ($n = 339$) were classified as occasional and 25.7% ($n = 117$) as severe. Student's t test (see Table 1) showed significant differences in the overall cyberbullying perpetration score between the two groups, but there were no differences in the problematic internet use variables ($t(454)=-1.194$; $p = .618$) and CSE ($t(442)=.112$; $p = .278$). Therefore, in the rest of the analyses, we did not consider the level of severity.

TABLE 1. Mean differences between severe and occasional cyberbullies.

Variables	Occasional Aggressors M (SD)	Severe Aggressors M (SD)	p
Problematic Internet Use	48.67 (12.45)	50.26 (12.76)	n. s.
Core Self-Evaluations	3.21 (0.54)	3.20 (0.60)	n. s.
Cyberbullying Perpetration	0.51 (0.30)	1.06 (0.66)	.000

Note: problematic internet use [0-100]; core self-evaluations [1-5]; n.s.: not significant.
Source: Own elaboration.

Table 2 shows the means, standard deviations, and Pearson r correlations between the study variables for the sample of cyberbullies. As was to be expected, there was a significant positive correlation between cyberbullying perpetration and problematic internet use and a negative correlation with CSE. In turn, CSE had a significant negative correlation with problematic internet use. Nonetheless, the magnitudes of these correlations can be classed as low as they varied between .11 and .29.

TABLE 2. Means, standard deviations, and correlations between the variables evaluated.

Variables	Range	M	SD	1	2	3
1. Problematic Internet Use	[20-100]	49.08	12.53	---		
2. Core Self-Evaluations	[1.1-5]	3.20	0.55	-0.284**	--	
3. Cyberbullying Perpetration	[.18-3.1]	0.65	0.49	0.152**	-0.106*	

Note: * $p < .05$; ** $p < .01$
Source: Own elaboration

3.2. Moderation analysis

We analysed the possible moderating effect of CSE on the relationship between problematic internet use and cyberbullying perpetration in this sample of cyberbullies with the Preacher macro using model 1 (Hayes, 2018). In these analyses we included the overall cyberbullying perpetration score as the dependent variable (DV), problematic internet use as the independent variable (IV), and CSE as the moderating variable. We controlled for the effect of age and gender by including them as covariables. We interpreted each regression analysis of the model using the values of the upper and lower limits of the confidence interval, which are shown in Table 3.

TABLE 3. Moderator analysis of self-evaluations of problematic internet use.

	ß	SE ß	R^2	rR^2	95 % IC
Cyberbullying Perpetration			0.069**		
Constant	1.728**	0.517			.712 a 2.745
Age	0.004	0.015			-.025 a .034
Gender	-0.146**	0.045			-.230 a -.052
Problematic Internet Use (IAT)	-0.270	0.174			-.613 a .070
Self-Evaluations (CSE)	-0.396*	0.140			-.672 a -.121
IAT * CSE	0.128*	0.054		0.0119*	.021 a .235

Note: ß = unstandardised regression coefficient; *SE* ß = standard error of the ß coefficient; R^2 = r-squared; rR^2 = incremental r-squared; 95% CI = Confidence Interval. * $p < .05;$ ** $p < .01$.
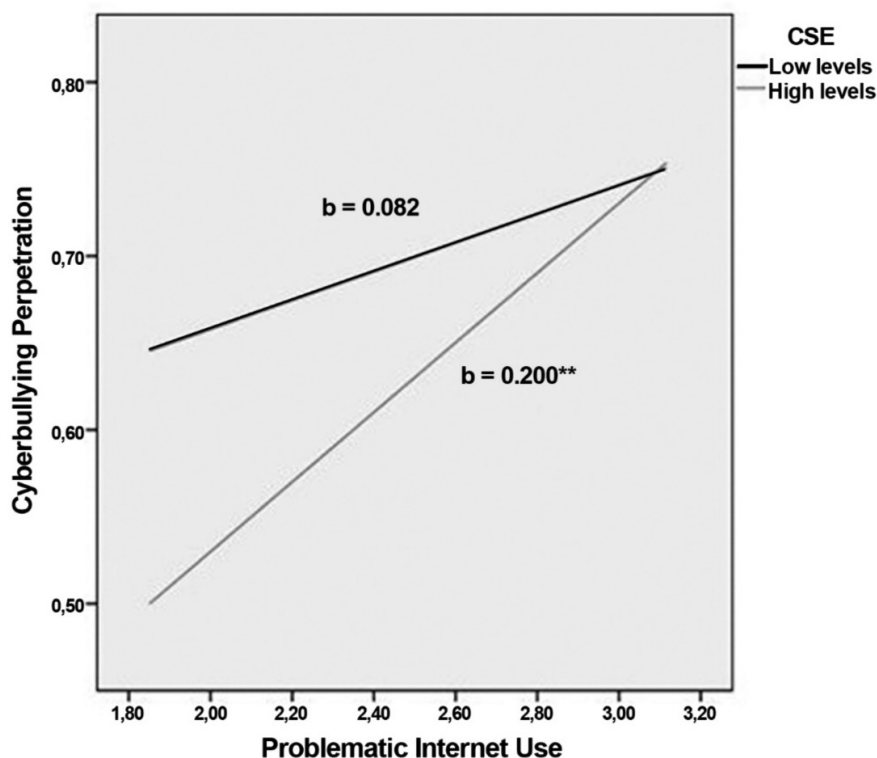Source: Own elaboration.

The model obtained was significant, albeit weak, as it explained 7% of the variance observed in cyberbullying perpetration (R^2 = .069; $F(5.438)$ = 6.56; $p <$ .01). As Table 3 shows, the "age" covariable had no effect on the final model (p = .771), but the "gender" covariable did (p = .001). The principal effect of problematic internet use was not significant when explaining the variance in cyberbullying perpetration (b = -.270; p = .121). The results revealed a significant effect of CSE (b = -.396; p = .004), as well as of problematic internet use × CSE interaction (rR^2 = .011; $F(1.438)$ = 5.58; p = .018). The relationship between variables can be seen in Graph 1, which shows the relationship between problematic internet use and cyberbullying perpetration according to the CSE level.

As Graph 1 shows, with low CSE levels, the positive relationship between problematic internet use and cyberbullying perpetration was not significant (β = .082; $t(438)$ = 1.95; p = .05), while it was significant with high levels of CSE (β = .200; $t(438)$ = 4.30; p = .000). In other words, when the level of problematic internet use was low, there was greater

GRAPH 1. Relationship between problematic internet use and CSE as predictor
of cyberbullying perpetration.

** $p < .01$
Source: Own elaboration.

involvement in cyberbullying perpetration by those participants who also had low CSE scores. However, when the level of problematic internet use was high, participants with high and low CSE scores alike were involved in cyberbullying behaviour to the same extent.

4. Discussion

Cyberbullying in adolescence is a growing social problem (Patchin, 2019). There have been notable advances in research on this subject in recent years, and interest in improving understanding of this phenomenon and providing the tools to facilitate its prevention from the earliest ages is apparent (Arnaiz et al., 2016). Nonetheless, research into cyberbullying perpetration principally focusses on studying the personal, contextual, and/or familial factors that might predispose people to become involved in these aggressive behaviours towards their peers (Chen et al., 2017; Resett & Gámez-Guadix, 2017). Accordingly, we have identified gaps in the explanations provided, as in addition to risk factors, there are protective factors that could minimise the likelihood of becoming a cyberbully. Taking as a starting

point the relationship between problematic internet use and cyberbullying perpetration found in previous research (Martínez-Ferrer et al., 2018; Yudes et al., 2020), in this study we examined whether core self-evaluations could be one of these protective factors.

The results obtained from a sample of adolescents aged between 12 and 18 with high scores on the cyberbullying scale confirm the proposed hypotheses regarding the relationship between the variables studied. We observed a greater level of cyberbullying perpetration as problematic internet use increased and a lower level as CSE scores increased. Similarly, we confirmed a significant relationship between more negative self-evaluations and higher levels of problematic internet use. The results on problematic internet use and cyberbullying perpetration are in line with previous research (Bussone et al., 2020; Gámez-Guadix et al., 2016), and although, to date, the relationship between these variables and CSE has not been studied directly, personality factors that predispose to these risk behaviours have been highlighted. Focussing on some of the dimensions that comprise CSE, we see that external locus of control is related with a preference for online social relations (Ye & Lin, 2015), and also with low self-esteem (Brewer & Kerslake, 2015). Similarly, displaying greater indices of neuroticism increases the likelihood of participating in cyberbullying behaviour (Garaigordobil, 2019). It does this directly and indirectly through other mechanisms such as depression (Zhang et al., 2020).

With regards to the analysis of the effects of interaction between problematic internet use and CSE on cyberbullying perpetration, the results reveal a significant and complex relationship. Accordingly, among cyberbullies with more negative (or lower) CSE, this variable does not affect the relationship between problematic internet use and cyberbullying perpetration. In addition, the effect obtained is weak and so the scores for problematic internet use and cyberbullying perpetration in these adolescents reach high levels. Consequently, as the former rises, we do not observe strong increases in the latter. In contrast, among cyberbullies with higher CSE, the interaction observed reflects the influence of CSE on the relationship between the two variables. So, among these participants, a higher CSE score minimises involvement in cyberbullying perpetration but only with a low level of problematic internet use. In other words, if this level is high, there is also high involvement in cyberbullying. In contrast, if the level of problematic internet use is low, this involvement in online aggressions is considerably lower. These results suggest that in those adolescents who have acted as cyberbullies but who have better psychological adjustment, there is a lower likelihood of aggravating problematic internet use and with it the experiences of cyberbullying. Accordingly, most research shows that exposure to problematic content online increased the likelihood of being a cyberbully (Mishna et al., 2012; Xin et al., 2018). These adolescents could therefore use virtual settings more safely by limiting exposure to certain content (violent or hate content), controlling their

style of online communication so they do not provoke new conflicts, or reducing the frequency, diversity, or severity of aggressive behaviours, among others. These findings highlight very relevant practical implications, as they show that personal resources stop having a protective effect if a high level of problematic internet use is reached, and so early prevention and intervention efforts become especially important.

Our results make it possible to develop a more comprehensive vision of the appearance and maintenance of cyberbullying behaviour in the school setting. In particular, they could be useful for establishing the basis for educational programmes to prevent and raise awareness of the risks deriving from irresponsible internet use and the impact of cyberbullying in adolescence. For example, some studies underline the fact that adolescents are conscious of problematic internet use in friends and schoolmates, but do not identify it in themselves (Díaz-Vicario et al., 2019). Therefore, preventative actions should be directed both at awareness raising and at the development or reinforcement of the intra- and interpersonal factors that can prevent an increase in the severity of this problem. In this way, they can be directed at educating in self-control in the use of online resources (for example, managing time, frequency, intensity, and context) (Soto et al., 2018), at social and communicative skills in virtual settings (Muñoz-Rodríguez et al., 2020), and at resources for confronting and solving problems (Shubnikova et al., 2017). All of this has a dual

objective of, on the one hand, learning to use technology competently and avoiding using it as a means to offload or escape from everyday problems (Tomczyk et al., 2020) and, on the other hand, of boosting the personal resources that act as factors that protect against and prevent violence (Garaigordobil, 2019; Zych et al., 2019).

Similarly, early detection can minimise the impact of some already present risk behaviours as our results show. Therefore, teachers and counselling teams alike should play an active role in preventative actions. Screening methods become a basic tool for detecting students who have a risk profile, for example, displaying negative self-evaluations, that is to say, lower self-esteem and self-efficacy, external locus of control, or a higher tendency to experience negative emotions. Interventions aimed at strengthening some of these components could also help guarantee positive development and psychosocial well-being inside and outside class. Emotional management is decisive in this development in adolescence (Reina & Oliva, 2015). Less emotionally intelligent adolescents display more behavioural aggression, with social interactions becoming more conflictive as their emotional regulation skills reduce (Larraz et al., 2020). On the basis of this, one way to work on CSE is through emotional education owing to the benefits this contributes to the development of psychological adjustment and levels of life satisfaction.

This study has a series of limitations, most notably the following: 1) although

the study population was large, the final sample of cyberbullies with which we performed the analyses is limited, and so the results could be difficult to generalise; 2) we used self-report measures to collect the information, something that could affect the results owing to social desirability and because responding to some of the items was complex depending on age; and 3) we cannot forget that it is a cross-sectional study that collects measurements on a specific period in the life of the person. Finally, although our findings underline the moderating role of CSE in the link between problematic internet use and cyberbullying behaviour, we should note that the percentage variance explained by our model and, specifically, by the interaction between CSE and problematic internet use is very modest (rR^2 = .01). These results suggest that other psycho-educational and personal dimensions could be influencing levels of cyberbullying perpetration and so should be the subject of future research in more comprehensive focuses. Nonetheless, small interaction effects, such as those in this study, should not be dismissed, especially when the academic or personal aspects examined are important for the group and, furthermore, are explained by different dimensions, their principal effects and their interactions (Meyer et al., 2001). Given that the estimation of these significant interactions is generally low, even an additional contribution of 1% to the total variance is regarded as being worth noting and worth studying for its contribution to the final explanation of the phenomenon in question (McClelland & Judd, 1993).

5. Conclusions

The results of this study support the previous evidence concerning the association between risk factors or vulnerability and involvement in cyberbullying perpetration behaviour, but they also build on this by providing new data about the protective role that personal resources play. The findings obtained reveal the benefits of certain personality traits when reducing problematic internet use in adolescents who have already acted as cyberbullies. In this sense, as has been shown, protective factors cease to have an effect as problematic internet use in cyberbullies reaches high levels. It is worth noting the importance of promoting preventative actions that prevent the establishment of maladaptive or risk behaviours deriving from new forms of communication. Only in this way, with prevention, management, and intervention measures in the initial phases of these problems, can their effects be minimised. The ultimate objective regarding these problems, which start in childhood and adolescence, is to prevent them appearing or at least prevent certain events that might occur occasionally from becoming chronic, and so ensure psychosocial well-being and life satisfaction, not only in this developmental stage, but also in subsequent ones.

References

Alonso, C., & Romero, E. (2020). Estudio longitudinal de predictores y consecuencias del ciberacoso en adolescentes españoles [Longitudinal study of predictors and consequences of cyberbullying in Spanish adolescents]. *Behavioral Psychology, 28* (1), 73-93.

Arnaiz, P., Cerezo, F., Giménez, A. M., & Maquilón, J. J. (2016). Conductas de ciberadicción y experiencias de cyberbullying entre adolescents [Online addiction behaviors and cyberbullying among adolescents]. *Anales de Psicologia, 32* (3), 761-769. https://doi.org/10.6018/analesps.32.3.217461

Arrivillaga, C., Rey, L., & Extremera, N. (2020). Uso problemático del smartphone y ajuste psicológico en adolescentes: el papel clave de la Inteligencia Emocional [Problematic smartphone use and psychological adjustment in adolescents: The key role of Emotional Intelligence]. *Know and Share Psychology, 1* (4), 147-158. https://doi.org/10.25115/kasp.v1i4.4258

Astor, R. A., & Benbenishty, R. (2018). Bullying, school violence, and climate in evolving contexts: Culture, organization, and time. In *Bullying, School Violence, and Climate in Evolving Contexts: Culture, Organization, and Ti*me (pp. 156-182). Oxford University Press. https://doi.org/10.1093/oso/9780190663049.001.0001

Aznar, I., Kopecký, K., Romero, J. M., Cáceres, M. P., & Trujillo, J. M. (2020). Patologías asociadas al uso problemático de internet. Una revisión sistemática y metaanálisis en WOS y Scopus [Pathologies associated with problematic internet use. A systematic review and meta-analysis in WOS and Scopus]. *Investigación Bibliotecológica: Archivonomía, Bibliotecología e Información, 34* (82), 229-253. https://doi.org/10.22201/iibi.24488321xe.2020.82.58118

Barlett, C. P., Seyfert, L. W., Simmers, M. M., Hsueh Hua Chen, V., Cavalcanti, J. G., Krahé, B., Suzuki, K., Warburton, W. A., Wong, R. Y. M., Pimentel, C. E., & Skowronski, M. (2020). Cross-cultural similarities and differences in the theoretical predictors of cyberbullying perpetration: Results from a seven-country study. *Aggressive Behavior, 47* (1), 1-9. https://doi.org/10.1002/ab.21923

Bisquerra, R., & Hernández, S. (2017). Psicología Positiva, educación emocional y el Programa Aulas Felices [Positive psychology, emotional education and the happy classrooms program]. *Papeles Del Psicólogo, 38* (1), 58-65. https://doi.org/10.23923/pap.psicol2017.2822

Brewer, G., & Kerslake, J. (2015). Cyberbullying, self-esteem, empathy and loneliness. *Computers in Human Behavior, 48,* 225-260. https://doi.org/10.1016/j.chb.2015.01.073

Bussone, S., Trentini, C., Tambelli, R., & Carola, V. (2020). Early-Life interpersonal and affective risk factors for pathological gaming. *Frontiers in Psychiatry, 11* (423), 1-9. https://doi.org/10.3389/fpsyt.2020.00423

Caplan, S. E. (2010). Theory and measurement of generalized problematic Internet use: A two-step approach. *Computers in Human Behavior, 26* (5), 1089-1097. https://doi.org/10.1016/j.chb.2010.03.012

Casale, S., Lecchi, S., & Fioravanti, G. (2015). The association between psychological well-being and problematic use of internet communicative services among young people. *Journal of Psychology: Interdisciplinary and Applied, 149* (5), 480-497. https://doi.org/10.1080/00223980.2014.905432

Casaló, L. V., & Escario, J. J. (2019). Predictors of excessive internet use among adolescents in Spain: The relevance of the relationship between parents and their children. *Computers in Human Behavior, 92*, 314-351. https://doi.org/10.1016/j.chb.2018.11.042

Chen, L., Ho, S. S., & Lwin, M. O. (2017). A meta-analysis of factors predicting cyberbullying perpetration and victimization: From the social cognitive and media effects approach. *New Media and Society, 19* (8), 1194-1213. https://doi.org/10.1177/1461444816634037

De la Villa, M., & Fernández, S. (2018). Uso problemático de internet en adolescentes españoles y su relación con autoestima e impulsividad [Problematic internet use in Spanish adolescents and their relationship with self-esteem and impulsivity]. *Avances en Psicología Latinoamericana, 37* (1), 103-119. https://doi.org/http://dx.doi.org/10.12804/revistas.urosario.edu.co/apl/a.5029

Del Rey, R., Casas, J. A., Ortega-Ruiz, R., Schultze-Krumbholz, A., Scheithauer, H., Smith, P., Thompsone, F., Barkoukisf, V., Tsorbatzoudisf, H., Brighig, A., Guarinig, A., Py alskih, J., & Plichta, P. (2015). Structural validation

and cross-cultural robustness of the European Cyberbullying Intervention Project Questionnaire. *Computers in Human Behavior, 50*, 141-147. https://doi.org/10.1016/j.chb.2015.03.065

Díaz-Vicario, A., Mercader, C., & Gairín, J. (2019). Uso problemático de las TIC en adolescentes [Problematic use of ICTs in adolescents]. *Revista Electrónica de Investigación Educativa, 21*, 1-11. https://doi.org/10.24320/redie.2019.21.e07.1882

Elipe, P., de la Oliva, M., & Del Rey, R. (2017). Homophobic Bullying and Cyberbullying: Study of a Silenced Problem. *Journal of Homosexuality, 65* (5), 672-686. https://doi.org/10.1080/00918369.2017.1333809

Elliott, D. C., Kaliski, P., Burrus, J., & Roberts, R. D. (2013). Exploring adolescent resilience through the lens of core self-evaluations. In S. Prince & D. Saklofske (Eds.), *Resilience in children, adolescents, and adults* (pp. 199-212). Springer. https://doi.org/10.1007/978-1-4614-4939-3_15

Estévez, E., Estévez, J. F., Segura, L., & Suárez, C. (2019). The influence of bullying and cyberbullying in the psychological adjustment of victims and aggressors in adolescence. *International Journal of Environmental Research and Public Health, 16* (2080), 1-16. https://doi.org/10.3390/ijerph16122080

Fínez, M. J., & Morán, C. (2017). Resiliencia y autovaloraciones esenciales: estudio comparativo en adolescentes y jóvenes [Resilience and core self-evaluations: A comparative study in adolescents and young]. *Psychology, Society and Education, 9* (3), 347-356. https://doi.org/10.25115/psye.v9i3.857

Fumero, A., Marrero, R. J., Voltes, D., & Peñate, W. (2018). Personal and social factors involved in internet addiction among adolescents: A meta-analysis. *Computers in Human Behavior, 86*, 387-400. https://doi.org/10.1016/J.CHB.2018.05.005

Gámez-Guadix, M., Borrajo, E., & Almendros, C. (2016). Risky online behaviors among adolescents: Longitudinal relations among problematic Internet use, cyberbullying perpetration, and meeting strangers online. *Journal of*

Behavioral Addictions, 5 (1), 100-107. https://doi.org/10.1556/2006.5.2016.013

Garaigordobil, M. (2019). Prevención del cyberbullying: variables personales y familiares predictoras de ciberagresión [Prevention of cyberbullying: Personal and family predictive variables of cyber-aggression]. *Revista de Psicología Clínica Con Niños y Adolescentes, 6,* 9-17.

Garmendia, M., Jiménez, E., & Larrañaga, N. (2019). Bullying y ciberbullying: victimización, acoso y daño. Necesidad de intervenir en el entorno escolar. **revista española de pedagogía***, 77* (273), 295-312. https://doi.org/10.22550/REP77-2-2019-08

Guo, S. (2016). A meta-analysis of the predictors of cyberbullying perpetration and victimization. *Psychology in the Schools, 53* (4), 432-453.

He, D., Shi, M., & Yi, F. (2014). Mediating effects of affect and loneliness on the relationship between core self-evaluation and life satisfaction among two groups of Chinese adolescents. *Social Indicators Research, 119* (2), 747-756. https://doi.org/10.1007/s11205-013-0508-3

Hayes, A. F. (2018). *Introduction to Mediation, Moderation, and Conditional Process Analysis. A Regression-Based Approach*. Guilford Press.

Herrera-López, M., Romera, E., & Ortega-Ruiz, R. (2017). Bullying y cyberbullying en Colombia: coocurrencia en adolescentes escolarizados. *Revista Latinoamericana de Psicología, 49* (3), 163-172. https://doi.org/10.1016/j.rlp.2016.08.001

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2003). The core self-evaluations scale: development of a measure. *Personnel Psychology, 56* (2), 303-331. https://doi.org/10.1111/j.1744-6570.2003.tb00152.x

Kammeyer-Mueller, J. D., Judge, T. A., & Scott, B. A. (2009). The role of core self-evaluations in the coping process. *Journal of Applied Psychology, 94* (1), 177-195. https://doi.org/10.1037/a0013214

Kowalski, R., Giumetti, G. W., Schroeder, A. N., & Lattanner, M. R. (2014). Bullying in the digital age: A critical review and meta-analysis of

cyberbullying research among youth. *Psychological Bulletin, 140* (4), 1073-1137. https://doi.org/10.1037/a0035618

Kowalski, R., Limber, S. P., & McCord, A. (2019). A developmental approach to cyberbullying: Prevalence and protective factors. *Aggression and Violent Behavior, 45*, 20-32. https://doi.org/10.1016/j.avb.2018.02.009

Larraz, N., Urbon, E., & Antoñanzas, J. L. (2020). La satisfacción con la familia y su relación con la agresividad y la inteligencia emocional en adolescents [Satisfaction with the family and its relationship with aggression and emotional intelligence in adolescents]. *Know and Share Psychology, 1* (4), 171-179. https://doi.org/10.25115/kasp.v1i4.4247

Machimbarrena, J. M., González-Cabrera, J., Ortega-Barón, J., Beranuy, M., Álvarez-Bardón, A., & Tejero, B. (2019). Profiles of problematic internet use and its impact on adolescents' health-related quality of life. *International Journal of Environmental Research and Public Health, 16* (20), 3877. https://doi.org/10.3390/ijerph16203877

Mäkikangas, A., Feldt, T., Kinnunen, U., & Mauno, S. (2013). Does personality matter? A review of individual differences in occupational well-being. In A. Bakker (Ed.), *Advances in Positive Organizational Psychology* (pp. 107-143). Emerald Publishing Limited. https://doi.org/10.1108/S2046-410X(2013)0000001008

Martínez-Ferrer, B., Moreno, D., & Musitu, G. (2018). Are adolescents engaged in the problematic use of social networking sites more involved in peer aggression and victimization? *Frontiers in Psychology, 9* (801), 1-13. https://doi.org/10.3389/fpsyg.2018.00801

McClelland, G., & Judd, C. (1993). Statistical difficulties of detecting interactions and moderator effects. *Psychological Bulletin, 114* (2), 376-390. https://doi.org/10.1037/0033-2909.114.2.376

Mei, S., Yau, Y. H. C., Chai, J., Guo, J., & Potenza, M. N. (2016). Problematic Internet use, well-being, self-esteem and self-control: Data from a high-school survey in China. *Addictive Behaviors, 61*, 74-79. https://doi.org/10.1016/j.addbeh.2016.05.009

Meyer, G., Finn, S. E., Eyde, L. D., Kay, G. G., Moreland, K. L., Dies, R. R., E. J. Eisman, T. W. Kubiszyn, & Reed, G. M. (2001). Psychological testing and psychological assessment: A review of evidence and issues. *American Psychologist, 56* (2), 128-165. https://doi.org/10.1037/0003-066X.56.2.128

Mishna, F., Khoury-Kassabri, M., Gadalla, T., & Daciuk, J. (2012). Risk factors for involvement in cyberbullying: Victims, bullies and bully-victims. *Children and Youth Services Review, 34* (1), 63-70. https://doi.org/10.1016/j.childyouth.2011.08.032

Müller, K. W., Dreier, M., Duven, E., Giralt, S., Beutel, M. E., & Wölfling, K. (2017). Adding clinical validity to the statistical power of large-scale epidemiological surveys on internet addiction in adolescence. *The Journal of Clinical Psychiatry, 78* (3), 244-251. https://doi.org/10.4088/jcp.15m10447

Muñoz-Rodríguez, J. M., Torrijos, P., Serrate, S., & Murciano, A. (2020). Entornos digitales, conectividad y educación. Percepción y gestión del tiempo en la construcción de la identidad digital de la juventud | *Digital environments, connectivity and education: Time perception and management in the construction of young people's digital identity.* **revista española de pedagogía***, 78* (277), 457-475. https://doi.org/10.22550/REP78-3-2020-07

Ortega, R., Del Rey, R., & Casas, J. A. (2016). Evaluar el bullying y el cyberbullying: validación española del EBIP-Q y del ECIP-Q [Assessing bullying and cyberbullying: Spanish validation of EBIPQ and ECIPQ]. *Psicología Educativa, 22* (1), 77-79. https://doi.org/10.1016/j.pse.2016.01.004

Palermiti, A. L., Servidio, R., Bartolo, M. G., & Costabile, A. (2017). Cyberbullying and self-esteem: An Italian study. *Computers in Human Behavior, 69*, 136-141. https://doi.org/10.1016/j.chb.2016.12.026

Patchin, J. (2020, February 21). Summary of our cyberbullying research (2007-2019). *Cyberbullying Research Center*. https://cyberbullying.org/summary-of-our-cyberbullying-research

Pedrero, E. J., Ruiz-Sánchez, J., Rojo, G., Llanero, M., Pedrero-Aguilar, J., Morales-Alonso, S., & Puerta, C. (2018). Tecnologías de la informa-

ción y la comunicación (TIC): uso problemático de internet, videojuegos, teléfonos móviles, mensajería instantánea y redes sociales mediante el MULTICAGE-TIC [Information and Communications Technologies (ICT): Problematic use of Internet, video games, mobile phones, instant messaging and social networks using MULTICAGE-TIC]. *Adicciones, 30* (1), 19-32. https://doi.org/10.20882/adicciones.806

Peterson, J., & Densley, J. (2017). Cyber violence: What do we know and where do we go from here? *Aggression and Violent Behavior, 34*, 193-200. https://doi.org/10.1016/j.avb.2017.01.012

Puerta-Cortés, D. X., Carbonell, X., & Chamarro, A. (2012). Análisis de las propiedades psicométricas de la versión en español del Internet Addiction Test [Analysis of the psychometric properties of the Spanish version of Internet Addiction Test]. *Trastornos Adictivos, 14* (4), 99-104. https://doi.org/10.1016/S1575-0973(12)70052-1

Reina, M., & Oliva, A. (2015). De la competencia emocional a la autoestima y satisfacción vital en adolescents [From emotional competence to self-esteem and life satisfaction in adolescents]. *Behavioral Psychology*, *23* (2), 345-359.

Resett, S, & Gámez-Guadix, M. (2017). Traditional bullying and cyberbullying: Differences in emotional problems, and personality. Are cyberbullies more Machiavellians? *Journal of Adolescence, 61*, 113-1126. https://doi.org/10.1016/j.adolescence.2017.09.013

Rey, L., Extremera, N., & Durán, M. A. (2012). Core self-evaluations, meta-mood experience, and happiness: Tests of direct and moderating effects. *Personality and Individual Differences, 53* (3), 207-212. https://doi.org/10.1016/j.paid.2012.03.009

Rey, L., Extremera, N., & Peláez-Fernández, M. A. (2016). Linking social support to psychological distress in the unemployed: The moderating role of core self-evaluations. *Social Indicators Research, 127*, 435-445. https://doi.org/10.1007/s11205-015-0958-x

Rial, A., Golpe, S., Isorna, M., Braña, T., & Gómez, P. (2018). Minors and problematic Internet use: Evidence for better prevention. *Computers in Human Behavior, 87*, 140-145. https://doi.org/10.1016/j.chb.2018.05.030

Savage, M. W., & Tokunaga, R. S. (2017). Moving toward a theory: Testing an integrated model of cyberbullying perpetration, aggression, social skills, and Internet self-efficacy. *Computers in Human Behavior, 71*, 353-361. https://doi.org/10.1016/j.chb.2017.02.016

Shubnikova, E., Khuziakhmetov, A., & Khanolainen, D. (2017). Internet-addiction of adolescents: Diagnostic problems and pedagogical prevention in the educational environment. *Eurasia Journal of Mathematics, Science and Technology Education, 13* (8), 5261-5271. https://doi.org/10.12973/eurasia.2017.01001a

Smith, P. K. (2015). The nature of cyberbullying and what we can do about it. *Journal of Research in Special Education Needs, 15* (3), 176-184. https://doi.org/10.1111/1471-3802.12114

Soto, A., de Miguel, N., & Pérez, V. (2018). Abordaje de adicciones a nuevas tecnologías: una propuesta de intervención en contexto escolar y tratamiento de rehabilitación [Addressing addictions to new technologies: a proposal for intervention in a school context and rehabilitation treatment]. *Papeles del Psicólogo*, *39* (2), 120-126. https://doi.org/10.23923/pap.psicol2018.2867

Tomczyk, Ł., Szyszka, M., & Stoši´c, L. (2020). Problematic Internet use among youths. *Education Sciences, 10* (6), 161. https://doi.org/10.3390/educsci10060161

Vila, M. M., Carballo, J. L., & Coloma, A. (2018). Rendimiento académico y cognitivo en el uso problemático de internet. *Adicciones, 30* (2), 101-110. https://doi.org/10.20882/adicciones.844

Wartberg, L., & Lindenberg, K. (2020). Predictors of spontaneous remission of problematic internet use in adolescence: A one-year follow-up study. *International Journal of Environmental Research and Public Health, 17* (2), 448. https://doi.org/10.3390/ijerph17020448

Wilmer, H., & Chein, J. M. (2016). Mobile technology habits: Patterns of association among

device usage, intertemporal preference, impulse control, and reward sensitivity. *Psychonomic Bulletin and Review, 23* (5), 1607-1614. https://doi.org/10.3758/s13423-016-1011-z

Wray-Lake, L., Syvertsen, A. K., & Flanagan, C. A. (2016). Developmental change in social responsibility during adolescence: An ecological perspective. *Developmental Psychology, 52* (1), 130-142. https://doi.org/10.1037/dev0000067

Xiao, J., Li, D., Jia, J., Wang, Y., Sun, W., & Li, D. (2019). The Role of Stressful Life Events and the Big Five Personality Traits in Adolescent Trajectories of Problematic Internet Use. *Psychology of Addictive Behaviors, 33* (4), 360-370. https://doi.org/10.1037/adb0000466

Xin, M., Xing, J., Pengfei, W., Houru, L., Mengcheng, W., & Hong, Z. (2018). Online activities, prevalence of Internet addiction and risk factors related to family and school among adolescents in China. *Addictive Behaviors Reports, 7*, 14-18. https://doi.org/10.1016/j.abrep.2017.10.003

Xinyu, R. (2017). *The influence of peer relationship of college students on internet addiction: The mediating effect of core self-evaluations.* China National Knowledge Infrastructure. https://en.cnki.com.cn/Article_en/CJFDTotal-XLJS201709002.htm

Ye, B., Li, L., Ma, T., Gao, L., Sheen, D., Liu, M., Wang, X., & Yang, Q. (2019). The effect of shyness on life satisfaction among Chinese college students: A moderated mediation model. *Current Psychology,* 1-9. https://doi.org/10.1007/s12144-019-00562-w

Ye, Y., & Lin, L. (2015). Examining relations between locus of control, loneliness, subjective well-being, and preference for online social interaction. *Psychological Reports, 116* (1), 164-175. https://doi.org/10.2466/07.09.PR0.116k14w3

Young, K. (1998). Internet addiction: The emergence of a new clinical disorder. *Cyberpsychology and Behavior, 1* (3), 237-244. https://doi.org/10.1089/cpb.1998.1.237

Yudes, C., Rey, L., & Extremera, N. (2020). Predictive factors of cyberbullying perpetration amongst Spanish adolescents. *International Journal of Environmental Research and Public Health, 17* (11), 3967. https://doi.org/10.3390/ijerph17113967

Zhang, D., Huebner, E. S., & Tian, L. (2020). Longitudinal associations among neuroticism, depression, and cyberbullying in early adolescents. *Computers in Human Behavior, 112,* 106475. https://doi.org/10.1016/j.chb.2020.106475

Zych, I., Farrington, D., & Ttofi, M. (2019). Protective factors against bullying and cyberbullying: A systematic review of meta-analyses. *Aggression and Violent Behavior, 45,* 4-19. https://doi.org/10.1016/j.avb.2018.06.008

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Upbringing and parenting. Detection of socio-educational and training needs in parents

Educación y crianza de los hijos. Detección de necesidades socioeducativas y formativas de los progenitores

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Abstract:

Parents often ask themselves what to do and how to deal with the different situations that arise with their children. Parent education programmes (PEP) attempt to provide answers to these questions. Nevertheless, it is pertinent to perform an updated assessment of parents' training and socio-educational needs in relation to the upbringing and parenting of children. To this end, the following objectives were set: a) to determine the degree of compliance with the principles of positive parenting (PPP) in a sample of mothers and fathers; b) to detect clusters of parents according to PPP and socio-demographic characteristics; c) to identify their preferences regarding training and attendance at these interventions. The sample consisted of 389 parents. Qualitative content and quantitative descriptive and multivariate cluster analyses were performed and Mann-Whitney U, Kruskal-Wallis H, Binomial and Chi-square tests were applied. Results showed lower scores for communication, stress management and involvement, and higher scores for shared activities, recognition and affection. Four clusters of parents were obtained (low, medium, high and very high PPP follow-up). They expressed a preference for the group format of the programme, attendance at weekends, in the afternoon and when the children are in early childhood. Some of the training content

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mentioned was related to emotions, communication, conflict resolution, behaviour management, information and communication technologies, values, norms, sexuality and drugs. Respondents require interventions that take into account the priorities expressed. The findings will allow us to confirm whether the interventions implemented and evaluated in the context explored are a suitable response to the needs detected, and also to justify the design of any new ones, if necessary.

Keywords: parent education, training need, parenting, multivariate analysis, qualitative analysis, programme planning.

Resumen:

Los progenitores se preguntan en multitud de ocasiones qué y cómo proceder ante las diferentes situaciones surgidas con sus hijos. A estas cuestiones intentan dar respuesta los programas de educación parental (PEP). Sin embargo, es pertinente llevar a cabo un diagnóstico actualizado de necesidades formativas y socioeducativas de los progenitores en relación a la crianza y educación de los menores. Para ello, se establecieron los siguientes objetivos: a) determinar el grado de cumplimiento de los principios de la parentalidad positiva (PPP) en una muestra de padres y madres; b) detectar agrupamientos de progenitores en función de los PPP y las características sociodemográficas; c) identificar sus preferencias formativas y de asistencia a dichas intervenciones. 389 progenitores conformaron la muestra. Se ejecutaron análisis cualitativos de contenidos y cuantitativos descriptivos, así como multivariante de conglomerados; se aplicaron las pruebas U de Mann-Whitney, H de Kruskal-Wallis, Binomial y Chi-cuadrado. Los resultados mostraron menores puntuaciones en comunicación, control del estrés e implicación; mayores en actividades compartidas, reconocimiento y afecto. Se obtuvieron cuatro clústeres de progenitores (bajo, medio, alto y muy alto seguimiento de los PPP). Expusieron predilección por la modalidad grupal de programa, la asistencia los fines de semana, en horario de tarde y cuando los hijos atraviesan la primera infancia. Algunos de los contenidos formativos señalados estaban relacionados con las emociones, la comunicación, la resolución de conflictos, el manejo de comportamientos, las tecnologías de la información y la comunicación, los valores, las normas, la sexualidad y las drogas. Los sujetos encuestados requieren de intervenciones que tengan en cuenta las prioridades expresadas. Los hallazgos permitirán contrastar si las intervenciones implementadas y evaluadas en el contexto explorado contestan con solvencia a las necesidades detectadas, así como justificar el diseño de otras nuevas si fuese necesario.

Descriptores: educación de los padres, necesidad de formación, crianza del niño, análisis multivariante, análisis cualitativo, planificación de programas.

1. Introduction

The family exercises responsibilities regarding the integral development of its members and has undergone transformations throughout history, going from homogeneous combinations to other more diverse ones (Golombok, 2016). Parents are an important part of these

organisations and key figures in the upbringing of children and, thus, they question how to act in situations arising in interactions with their children (Rubio et al., 2020).

In this sense, recognition is given to the importance of adults taking on educational and socialising tasks with children from the perspective of establishing respectful parent-child relationships, which has been pointed out by the positive parenting approach in different studies (Martínez et al., 2021; Rodrigo, 2015; Vázquez et al., 2016) and international recommendations (Council of Europe, 2006).

In this way, the exercise of parenthood from this perspective involves assimilating and developing key aspects or principles such as the establishment of warm, stable and protective emotional bonds; the provision of a well-structured environment, transmitting and adequately modelling values and norms; the support and stimulation of school and daily learning; the recognition of children and adolescents' achievements, listening to and showing interest in their concerns, experiences and ways of seeing the world; the empowerment of children, favouring their perceptions as competent, active players capable of having a voice and participating; and a non-violent upbringing (Rodrigo et al., 2010).

In this respect, parents need to know strategies to act in an assertive and consistent way in order to educate, mainly when it comes to setting rules and boundaries. They also need to acquire communi-

cation and social skills that allow them to adequately express their emotions, using dialogue and negotiation in situations of conflict and actively listening to their children (Martínez et al., 2007).

Morales et al. (2016) reported that parents tended to use strategies based on positive social interactions, setting rules, in addition to giving social rewards to children for good behaviour. However, they required practices such as parental supervision to be developed and handing over material gains, corporal punishment and the use of inconsistent discipline to be reduced.

The study by Peixoto and Tomás (2017) found that older mothers showed lower levels regarding family participation, communication aspects and stress management. The place of residence was also a determining factor, as parents who lived in urban areas scored higher on affection and recognition.

Thus, research has shown that some parents have difficulties in meeting the demands of their children, which is expressed by means of very few displays of affection, limited shared play time with children and moderate enjoyment by adults of those moments, inability to set rules and boundaries, as well as difficulties in properly stimulating the autonomy of the little ones, ranging from very protective to demanding styles (Limiñana et al., 2018).

Therefore, the issues and concerns raised by parents in relation to the

upbringing and parenting of children attempt to be covered by parent education programs (Rodrigo, 2016), which aim to strengthen parenting skills in terms of positive parenting principles (Suárez et al., 2016).

Nevertheless, socio-educational interventions must start with a needs analysis that allows us to discover, prioritise and select those that are most relevant in order to try to resolve them. The detection of these needs would enable the identification of problems and would justify the selection or adaptation of an existing intervention, as well as the design of a new one if necessary (García, 2012).

However, in order for parents to attend the programmes, the institutions must support and encourage their involvement and participation. Consequently, it seems relevant to know the developmental stage for which they require most help, their interests, concerns and training needs (Chinchilla & Jiménez, 2015), detecting the key priority areas in relation to positive parenting principles (Esteban & Firbank, 2019), as well as others that go beyond them and are new and relevant to address in the interventions.

It is equally relevant to know which programme attendance mode they choose and to consider their preferred day and time of attendance, since their time availability is scarce due to work and family commitments (Márquez et al., 2019).

Thus, the general objective of this research is to perform an analysis of the reality in which parents are immersed in order to understand some of their current socio-educational and training needs in relation to the parenting and upbringing of their children. To achieve this, the following specific objectives are proposed: to determine and describe the degree to which they follow the principles of positive parenting (PPP), to identify and describe the preferences of training-attendance to parent education programmes (PEP) and the educational stage of the children in which they require most support, to detect and describe possible clusters of parents according to the different degrees of follow-up of the PPP and sociodemographic characteristics, and to reveal and describe the training content that they currently consider necessary to address in PEP.

2. Method
2.1. Design
According to Ato et al. (2013), this paper would be considered quantitative empirical research, within the descriptive strategy, following a cross-sectional non-probabilistic selective design, with the aim being to describe respondents' answers without manipulating the study variables.

2.2. Participants
The initial population consisted of all families with children attending Pre-School (Pre-S), Primary School (PS) and Compulsory Secondary Education (SE) in the Autonomous Community of the

Region of Murcia (CARM). The population size consisted of 229,399 families, according to the CARM household census (2021) and, therefore, the sample size was not representative of the population for a confidence level of 99% and a margin of error of 5%.

389 parents of legal age from different municipalities of the nine regions of the CARM participated voluntarily. 83.7% were women, 16.3% men, with an average age of 39.95 years (40.45 for women, 39.95 for men). 1.5% were under 20 years of age, 8.8% between 20 and 30, 45.3% between 31 and 40, 33.5% between 41 and 50, and 10.9% over 50. 87.9% belonged to urban areas, 88.5% were born in Spain and 11.5% in other countries (Ecuador, Bolivia, Honduras, Colombia, Argentina, Romania and Morocco). Regarding the highest level of education, 35.6% had completed undergraduate studies and 25.1% had completed postgraduate studies, 20.8% had completed vocational training, 10.6% the equivalent of A-levels/high-school diploma, 3.6% primary education, 3% secondary education, 0.9% had no education and 0.3% had completed other types of training. The variables age, country of origin and level of education showed statistically significant differences (p=0.000). Regarding marital status, 60.1% were married and 16.9% were single. Regarding employment status, 63.1% were employees and 16.3% were self-employed. According to the level of income of the family unit, 59.8% received over 1500 euros per month and 15.1% between 501 and 1000 euros. Regarding living

arrangements, 82.2% lived together with their partner in the same home. The average length of the couple's relationship was 12.42 years. 45% of the parents had two children and 38.7% had one.

2.3. Instrument

The data and information collection instrument (DICI) was created using other previously validated instruments. The design was based on a systematic review, choosing those instruments that could respond to the problem and the research objectives: the Positive Parenting Scale (Suárez et al., 2016) and some open-ended questions from the Emotional and Social Parenting Skills Questionnaire (Martínez et al., 2016). Appropriate and relevant items were selected with the intention of keeping them as short as possible. Questions related to other variables were introduced, written according to the indications by Hernández and Mendoza (2018). Content validity was performed qualitatively using the inter-rater procedure, with the participation of four university lecturers in the area of research methods in education and three professionals with experience in parent education. The preliminary instrument was applied to a sample of 58 parents to test it empirically. Face validity was considered qualitatively by taking into account the responses of four participants with varied socio-demographic characteristics in relation to their experience, completing the instrument and the suggestions for improvement offered. Reliability and construct validity could only be assessed for the second dimension (Suárez et al., 2016),

given that the remaining items were not on a quantitative or qualitative ordinal measurement scale. Cronbach's alpha yielded an index $\alpha=0.95$, considered very reliable (Gil, 2015). No item had to be eliminated, since all the corrected item-total correlations exceeded the value of 0.20 and internal consistency did not significantly increase by deleting items. The conditions for the application of factor analysis were met, such as the value of the significance index of Bartlett's test of sphericity ($p=0.000$) and the Kaiser-Meyer-Olkin sampling adequacy indicator (KMO=0.954). Factors were extracted using the principal component analysis and the latent root criterion (eigenvalues>1). The factors were rotated using the orthogonal Varimax rotation method. It was established that the factor loading of the variables should be greater than 0.40 for their retention. The information contained in the variables was grouped into four factors (73.83 % of the total variance explained). As a result of the phases described above, the final format of the instrument was obtained and digitised using Google Forms.

2.4. Variables

The following dimensions of variables collected in the DICI items were considered: a) socio-demographic (12 items): sex, age, level of education, country of origin, population, marital status, employment status, living arrangements, length of relationship, number of children, income level of the family unit; b) principles of positive parenting (Suárez et al., 2016), made up of four factors (18 items on a 5-point Likert scale): family involvement, affection and recognition, communication and stress control, shared activities; c) preferences for training and attendance at parent education programmes (4 items): preferred mode of intervention, preferred day and time of attendance, children's educational stage that requires the most support; d) training needs regarding the parenting and upbringing of children (1 item).

2.5. Procedure

The list of municipalities in the CARM regions was accessed in order to draw up a list of the 45 municipalities that form part of the CARM: seven rural and 38 urban. In order to select the sample, two types of non-probability sampling were followed (Gil, 2015): convenience-due to accessibility (selection of one rural and urban municipality per region) and snowball sampling (selection of parents with children attending Pre-S, PS and SE in the previously selected municipalities, who were asked to complete the questionnaire and share it with others. Previously, parents' associations in the selected towns, school principals and parents in particular were contacted electronically in order to facilitate access to the future invited subjects). Acceptors were sent the hyperlink to the questionnaire. The data was collected by means of the dissemination of the instrument between 1 January and 15 March 2020. The research followed the Organic Law 3/2018 of 5 December on the Protection of Personal Data and Guarantee of Digital Rights

(2018) and the ethical principles in social sciences published by the European Commission (2018). Upon completion of the data collection, the data were analysed using the SPSS statistical package (version 25) and ATLAS.ti software (version 8).

2.6. Data and information analysis

The data were described using frequency distributions and percentages, tables and graphs, measures of central tendency and standard deviation as a measure of variability. Different tests were applied for hypothesis testing for one single sample (Binomial and Chi-square). Contrast statistics were used according to the categories of the classification variables, specifically the Mann-Whitney U and the Kruskal Wallis H. The Chi-square coefficient (χ^2) was used for the association analyses. As a multivariate technique, the hierarchical cluster analysis process (Ward's clustering method) was followed (Gil, 2015). For all of the above, the nature of the variables, their distribution and a type I error ($\alpha=0.05$) were taken into account.

Finally, a textual content analysis was conducted on the open-ended question of the questionnaire in order to reveal the most frequent ones, following the general procedure for qualitative data based on categories and topics (Hernández & Mendoza, 2018). The categories were established deductively based on a general dimension and any emerging categories detected during the analysis.

3. Results
3.1. Objective a: degree of compliance with the principles of positive parenting

Regarding the degree to which the parents surveyed followed the principles of positive parenting (PPP), the results obtained (Table 1) showed higher scores in the "affection and recognition" factor (F2) ($\chi=4.33$, SD=0.79) and in the "shared activities" factor (F4) ($\chi=4.03$, SD=0.89). The scores were lower in the "communication and stress control" factor (F3) ($\chi=3.85$, SD=0.73) and in the "family involvement" factor (F1) ($\chi=3.85$, SD=0.81).

Moreover, in the detailed analysis of items-variables, aspects to be improved by the parents were detected. Thus, in F1, the variable with the lowest scores was "distribution of household chores" (I11). With regards to F2, the variables with the lowest scores were "maintaining respect and affection during arguments" (I15) and "celebrating children's achievements" (I16).

Meanwhile, with regards to F3, the variables showing signs of much-needed improvement were "controlling emotional state when angry with children" (I22), "controlling breathing and tone of voice when parents feel they are going to shout at the children" (I23) and "adults correcting children's behaviour in private and explaining other behavioural choices" (I24).

Furthermore, in F4, the variable with the weakest score was "family lunches and dinners" (I25).

TABLE 1. Results obtained in the second dimension of the instrument.

Ítems (I)	Me	χ	SD
I10. Shared dreams/goals	4	3.88	1.01
I11. Distribution of chores	4	3.73	1.03
I12. Problem solving	4	3.95	0.88
Total in factor 1: family involvement	---	3.85	0.81
I13. Showing affection	5	4.50	0.87
I14. Showing trust	5	4.34	0.89
I15. Maintaining respect	4	4.03	0.97
I16. Celebrating achievements	5	4.29	0.95
I17. Showing satisfaction	5	4.40	0.92
I18. Placing value on achievements	5	4.44	0.90
Total in Factor 2: affection and recognition	---	4.33	0.79
I19. Active listening	5	4.44	0.90
I20. Rules for living together	4	4.10	0.95
I21. Expressing emotions	4	4.07	1.01
I22. Controlling emotions	4	3.52	0.81
I23. Controlling tone of voice	3	3.31	0.89
I24. Correcting behaviour in private	4	3.71	0.98
Total in factor 3: communication and stress management	---	3.85	0.73
I25. Family meals	4	3.99	1.04
I26. Extracurricular activities	4	4.10	1.04
I27. Leisure activities	4	4.01	1.03
Total in factor 4: shared activities	---	4.03	0.89

Source: Own elaboration.

On another note, the analyses indicated statistically significant differences between the PPP factors and certain socio-demographic characteristics of the parents. Thus, it was observed that the mean ranges were significantly lower in the four factors for males (especially in F4, $U=4451.5$, p=0.000); in F2 ($U=6049$, p=0.003), F3 ($U=6675.5$, p=0.042) and F4 ($U=6310.5$, p=0.009) when they lived alone, and also in all factors when they stated that they did not have any kind of studies (especially in F4, $H=29.92$, p=0 .000). The mean ranges were higher in F4 ($H=8.920$, p=0.030) when they only had one child; in F1 ($H=10.74$, p=0.030), F2 ($H=10.93$, p=0.027) and F4 ($H=22.93$, p=0.000) when their age was between 31 and 40; in F2 ($H=12.82$, p=0.012), F3 ($H=12.07$, P=0.017) and F4 ($H=12.16$, p=0.016) when they reported having

a monthly income of over 1500 euros; in F2 ($H=21.47$, p=0.001) and in F4 ($H=12.22$, p=0.032) when they were homemakers and in all factors (mainly in F4, $H=26.89$, p=0.000) when the couple had been together for 11 to 20 years.

3.2. Objective b: training preferences and programme attendance

In relation to the preferences regarding the parent education programme mode of attendance (PPEPM), the majority of parents surveyed chose the group mode ($f=155$; 46.8%), followed by individual ($f=82$; 24.8%) and online ($f=47$; 14.2%). 14.2% (f=47) showed no interest in participating in a programme.

In terms of the preferences regarding day of attendance at parent education programmes (PDAPEP), the majority of parents surveyed chose Saturday-Sunday (f=173; 52.3%), followed by Monday-Thursday (f=89; 26.9%) and Friday (f=69; 20.8%).

In relation to the preference of the time of attendance at a parent education programme (PTAPEP), the preferred option was in the afternoon (f=144; 43.5%), followed by the morning (f=128; 38.7%) and evening (f=59; 17.8%).

In addition, the three variables analysed (preferred mode, day and time) showed statistically significant differences (p=0.000). They were also detected regarding gender and PTAPEP: ($U=6032$, p=0.015; men preferred evenings and women preferred mornings),

age and PPEPM ($H=14.98$, p=0.005; parents up to the age of 50 preferred group mode and those over 50 mainly stated that they were not interested in this type of training), employment status and PTAPEP ($H=13.5$, p=0.019; parents who were homemakers preferred Fridays, while employed parents preferred Saturdays-Sundays), the length of the relationship and PPEPM ($H=11.9$, p=0.035; parents without a partner, or with a 1-30 year relationship, mainly chose the group mode, while those with a relationship of 31 or over 40 years were not usually interested in this type of intervention), as well as between the number of children and the PTAPEP ($H=9.6$, p=0.022; parents with 1-3 children preferred afternoons, while those with more than three children preferred mornings).

3.3. Objective c: children's educational stage that requires the most support

Regardless of the age of their children, parents considered that more training and support was required from a parent education programme when the children were in Pre-S (0-6 years old) (f=165; 49.8%), followed by PS (6-12 years old) (f=84; 25.4%) and SE (12 or more years old) (f=82; 24.8%).

In addition, the variable educational stage of the children in which the parents require most support (ESCMS) showed statistically significant differences (p=0.000). Inequalities were also found in terms of age and ESCMS ($H=18.56$, p=0.001; parents up to 50 years of age mainly selected the Pre-S

option, while those over 50 chose the SE option), the length of the relationship and ESCMS ($H=14.1$, $p=0.015$; parents without a partner or with a 1-20 relationship typically chose the Pre-S option, while those with a 21-40 year relationship typically chose the SE alternative) and the number of children and ESCMS ($H=13.5$, $p=0.004$; parents with more than three children were more likely to choose PS).

3.4. Objective d: possible parent clusters

The hierarchical cluster analysis resulted in the formation of four clusters (Graph 1). The 18 variables related to the PPPs and belonging to the second dimension of the instrument were included in the process. All of them were significant for cluster formation and were significantly associated with the clusters (Table 2).

In order to compare the results obtained in each of the variables and clusters, two cut-off points were taken into account: one that is norm-referenced (total mean for each variable) and another that is criterion-referenced, established at 2.5 points (Table 2).

GRAPH 1. Scatter plot resulting from the hierarchical cluster analysis.
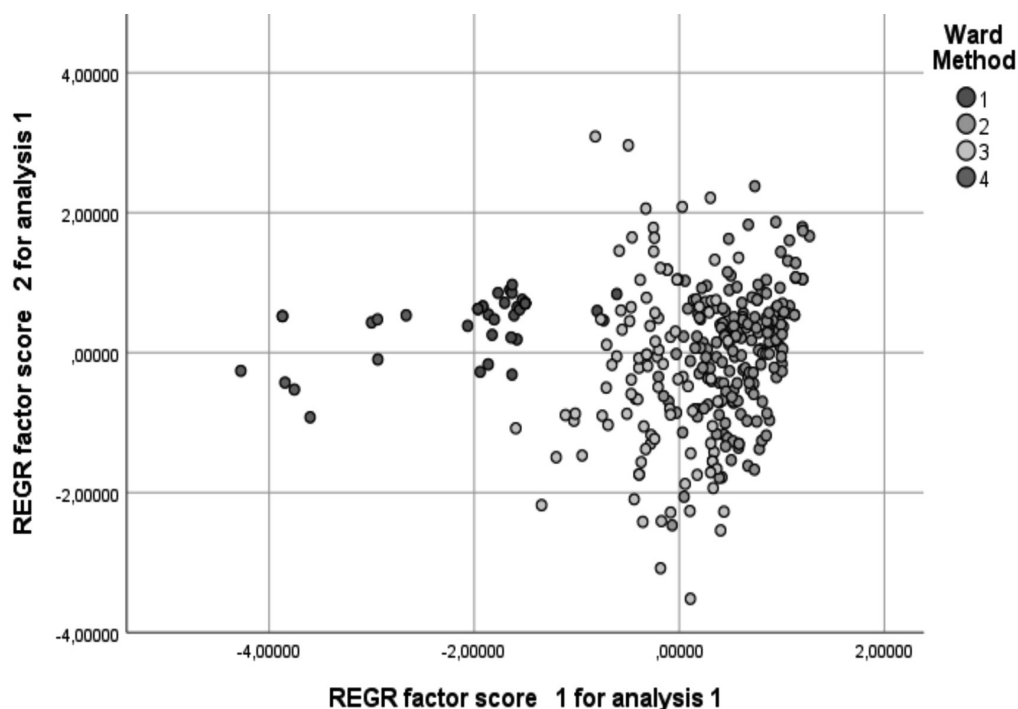
Source: Own elaboration.

TABLE 2. Description of the clusters.

Ítem	Clúster 1	Clúster 2	Clúster 3	Clúster 4	Total mean	Differences (*H*)	Associations (χ^2)
Factor 1: family involvement							
I10. Shared dreams/ goals	3.06 [N]	4.37	3.48 [N]	1.40 [N C]	3.88	125.22 ***	271.12 ***
I11. Distribution of chores	3.03 [N]	4.13	3.45 [N]	1.50 [N C]	3.73	82.45 ***	178.70 ***
I12. Problem solving	3.19 [N]	4.41	3.55 [N]	1.90 [N C]	3.95	133.95 ***	305.30 ***
Total in F1	9.28	12.91	10.48	4.8	---	---	---
I13. Showing affection	3.25 [N]	4.88	4.52	1.60 [N C]	4.50	164.69 ***	519.64 ***
I14. Showing trust	3.17 [N]	4.78	4.21 [N]	1.80 [N C]	4.34	142.19 ***	385.66 ***
I15. Maintaining respect	3.22 [N]	4.45	3.76 [N]	1.70 [N C]	4.03	109.10 ***	269.14 ***
I16. Celebrating achievements	2.89 [N]	4.78	4.18 [N]	1.40 [N C]	4.29	170.67 ***	484.78 ***
I17. Showing satisfaction	2.89 [N]	4.88	4.35 [N]	1.40 [N C]	4.40	194.33 ***	572.15 ***
I18. Placing value on achievements	2.92 [N]	4.85	4.52	1.60 [N C]	4.44	179.91 ***	509.83 ***
Total in F2	18.34	28.62	25.54	9.5	---	---	---
I19. Active listening	2.89 [N]	4.87	4.49	1.70 [N C]	4.44	184.35 ***	509.23 ***
I20. Rules for living together	2.86 [N]	4.60	3.88 [N]	1.20 [N C]	4.10	167.51 ***	499.13 ***
I21. Expressing emotions	2.78 [N]	4.65	3.71 [N]	1.50 [N C]	4.07	173.03 ***	438.13 ***
I22. Controlling emotions	2.86 [N]	3.89	3.23 [N]	1.70 [N C]	3.52	116.24 ***	273.46 ***
I23. Controlling tone of voice	2.78 [N]	3.70	2.97 [N]	1.30 [N C]	3.31	101.62 ***	205.29 ***
I24. Correcting behaviour in private	2.75 [N]	4.01	3.69 [N]	1.70 [N C]	3.71	84.90 ***	188.55 ***
Total in F3	16.92	25.72	21.97	9.1	---	---	---
I25. Family meals	2.61 [N]	4.49	3.81 [N]	1.50 [N C]	3.99	140.96 ***	318.05 ***
I26. Extracurricular activities	2.81 [N]	4.49	4.06 [N]	1.80 [N C]	4.10	117.33 ***	246.80 ***
I27. Leisure activities	2.72 [N]	4.47	3.83 [N]	1.70 [N N C]	4.01	132.54 ***	288.81 ***
Total in F4	8.14	13.45	11.7	5	---	---	---
Total mean	2.95 [N]	4.45	3.81 [N]	1.54 [N C]	4.01	---	---

Note: N = does not exceed the norm-referenced cut-off point; C = does not exceed the criterion-refer-enced cut-off point; H = nonparametric Kruskal-Wallis hypothesis test; df = 3 for all variables in the H test; χ^2 = Pearson's Chi-square; df = 12 for all variables in the χ^2 test; * = p < 0.05, ** = p < 0.01, *** = p < 0.001.
Source: Own elaboration.

A hypothesis test was performed whereby socio-demographic variables (not included in the multivariate technique applied) were crossed with the clusters formed to validate the groups found. The results showed that there were statistically highly significant associations in the composition of the clusters and gender of the parents (χ^2=23.30, df=3, p=0.000), age (χ^2=35.48, df=12, p=0.000), level of education (χ^2=70.09, df=21, p=0.000), living arrangements (χ^2=23.30, df=3, p=0.000), employment status (χ^2=41.45, df=15, p=0.000) and income level (χ^2=37.67, df=12, p=0.000). Therefore, it can be stated that the clusters were properly formed.

Cluster 1 (n=36; 10.9 %), referred to as having median follow-up of the PPP, is characterised by parents who reach the mean of all variables in the criterion-referenced assessment but not in the norm-referenced assessment. Predominantly made up of women between 31 and 40 years old, with vocational training and a monthly income of over 1500 euros.

Cluster 2 (n=187; 56.5%), referred to as having very high follow-up of the PPP, is characterised by showing the highest means in all variables, exceeding both the criterion-referenced and norm-referenced assessment. Mostly made up of women, between 31 and 40 years old, with undergraduate university studies and a family-unit income of over 1500 euros per month.

Cluster 3 (n=98; 29.6%), referred to as having high follow-up of the PPP, stands out for having means that exceed the criterion-referenced and norm-referenced assessment in the variables 'showing affection', 'placing value on the children's school achievements', and also in 'active listening'. The rest of the variable means cross the criterion-referenced assessment threshold but not the norm-referenced threshold. It is mainly made up of women, between 41 and 50 years of age, with undergraduate university studies and a monthly income of over 1500 euros.

Cluster 4 (n=10; 3%), referred to as having low follow-up of the PPP, is characterised by having means in all variables that do not exceed either the norm-referenced or criterion-referenced assessment. Made up mostly of men, between 31 and 40 years of age, with the equivalent of A-levels/high school diploma and a lower income level than the other clusters.

3.5. Objective e: training content that needs to be addressed in the programmes

The main categories (CA) and codes emerging from the content analysis have been linked to the fragments of the discourse (Graph 2), the participant being indicated by means of a "number" and either "Fa" for father or "M" for mother.

Regarding the emotional world (CA1), parents show training needs regarding "emotions" (M2, M19, M51, M137) and their "handling" (M54), "control" (M128, M152, M202), "regulation" (M92) and "management" (M82, M105, M108, M274, M277). They would like to learn how to control their "nerves" (M244), "emotions" when they correct their children's behaviour (M202); they want to know "how to manage negative emotions and how not to take it out on (their partner and children)"

(M267), especially "when they get on your nerves doing something that bothers you a lot or when you are very tired and your patience is running out" (M89). They would like to "have the necessary tools to control their emotions, to recognise them…" (M19). This category is linked to CA2 (communication) and CA9 (relationship with partner) and to F2 and F3.

Regarding communication (CA2), they wish to improve it "with their partner" (Fa9, M120) or "ex-partner" (M272) and "with the children" (M120, M153, F51), "without fear of getting into an argument" (M116). They consider it necessary to learn "communication strategies" (M128), "active" (M9) and "assertive listening" (M92, M208); also "techniques so that the children…talk and…we improve our ability to listen" (M136) and "to communicate with them so that they understand us" (M246). They are concerned about how to listen to their children and "how to talk to them about the different circumstances of life…in such a way that they understand" (M6) and so that they can "tell me what's going on with them" (M10). CA2 connects with CA9 and with F2 and F3, specifically with regards to active listening and showing trust. In addition, the communication guidelines must be adapted to the children's developmental stage (CA6). This would allow them to "better understand their behaviour" (M30), "actions" (M246), to be able to put themselves in their children's shoes in order to "clearly see how they deal with any obstacles they encounter in their daily lives" (M18). This arises, above all, when children go through adolescence (M246, M257).

Returning to the relationship with partner (CA9), parents wish to "improve their relationship" (Fa11), "work on their differences regarding the children's upbringing" (M98) or "deal with the conflicts… arising as a result of motherhood" (M102).

Regarding social skills (C3), linked to CA2, they consider it appropriate to acquire "suitable strategies to socialise" (M220) and to properly convey them to children, since "to set an example to a child, you have to be a good example first" (M19). Among them, they highlight "assertive communication" (M189) or "talking assertively" (M208).

They also consider it appropriate to learn to cope with adversity and difficulties (CA8). They would like to "know how to react to any problems that arise" (Fa42), learn how to "handle typical problems" of childhood and adolescence (M136), "manage the difficulties that arise" (M162), "overcome adversities" (M173) and "know how to act when problems arise" (Fa12). In this sense, stress plays a key role and, thus, it is necessary to recognise it and manage it properly in order to "face changes in the family environment" (M175), "live life with more peace of mind" (M95), learning to "channel" (M148). Therefore, CA8 is related to F3 and to CA4 (conflict resolution), CA5 (rules, boundaries and consequences) and CA6.

Consequently, another of the central themes is that which affects harmony in the home, specifically learning procedures and techniques for "conflict resolution"

(CA4) (M7, M50, M111, M112, M125, M178, M187, Fa29, Fa34) to "help them resolve conflicts by themselves" (M19, M50), to know how to "manage conflicts... at different ages" (M164), "improve interaction and mutual understanding" (Fa28) and gain the children's "trust" (M177, M242). This category is linked to setting rules, boundaries and consequences (CA5) and to F1 and F3. An example of this is the need to "limit the use of technology" (M35), "set timetables and guidelines for the appropriate use and time for using technology" (M64), "set rules that are obeyed at home" (M67) and "set appropriate boundaries" (Fa36).

Moreover, parents need training regarding the behaviour (CA7) of their children in order to "handle certain situations" (Fa1), as well as "to learn techniques to confront behaviour that upsets coexistence at home" (M163), and ways of correcting behaviour. Regarding the latter, they would like to "know how to correct their behaviour" (M238), different "ways" of reacting to bad behaviour (M67, M120), how to "tell them off without causing them any harm" (M202) or how to "correct their behaviour with love" (M250). This is linked to CA5 and to F2 and F3, specifically in relation to maintaining respect and rectifying inappropriate behaviour.

Values (CA10) and attitudes (CA11) are very important. Parents state that they need "values education" (M243) to "convey to their children how to be good citizens and professionals" (Fa7), "to make them good people" (M55), "to teach them to be responsible and place value on their achievements" (M74). "I need to know how to give values education"

(M197) and "guidance on promoting values" (M194). Furthermore, they would like to learn to "have more patience" (M9, M16, M162), "be more patient" (M19) or to "control their impatience" (M169). Therefore, what was stated by the adults would be in line with F4, given that through shared family activities, the development of attitudes and values is supported, and also with F3, specifically with placing value on the children's achievements.

Regarding training needs in the area of health (CA12), parents intend to plausibly deal with certain issues when their children reach "adolescence" (M265); training on contents such as "drug addiction" (M61), "sexuality" (M168), "how to talk to a child about sex" (M245), "how to encourage healthy living" (M258) or "how to make them understand that it is time to turn off the mobile phone" (M19) are recurrent issues that are linked, in turn, to categories CA2, CA5 and CA6.

However, some parents found it difficult to identify training needs related to the parenting and upbringing of their children or did so in a general or ill-defined way. They stated that it was "difficult to answer" (M33), that there were "many" (M196) or that they would like to learn "how to parent" (M28, Fa5) or "how to educate" (M48, M143, M253) "properly" (Fa24). They were interested in "sharing experiences" with other parents (Fa18), and in "having places for reflection on parenting" (M49) where you can "listen to the experiences of others, since the accounts of other mothers help...they can tell us what has worked for them and what hasn't...that's where the issues arise..." (M65) (M65).

GRAPH 2. Main categories emerging from qualitative data analysis
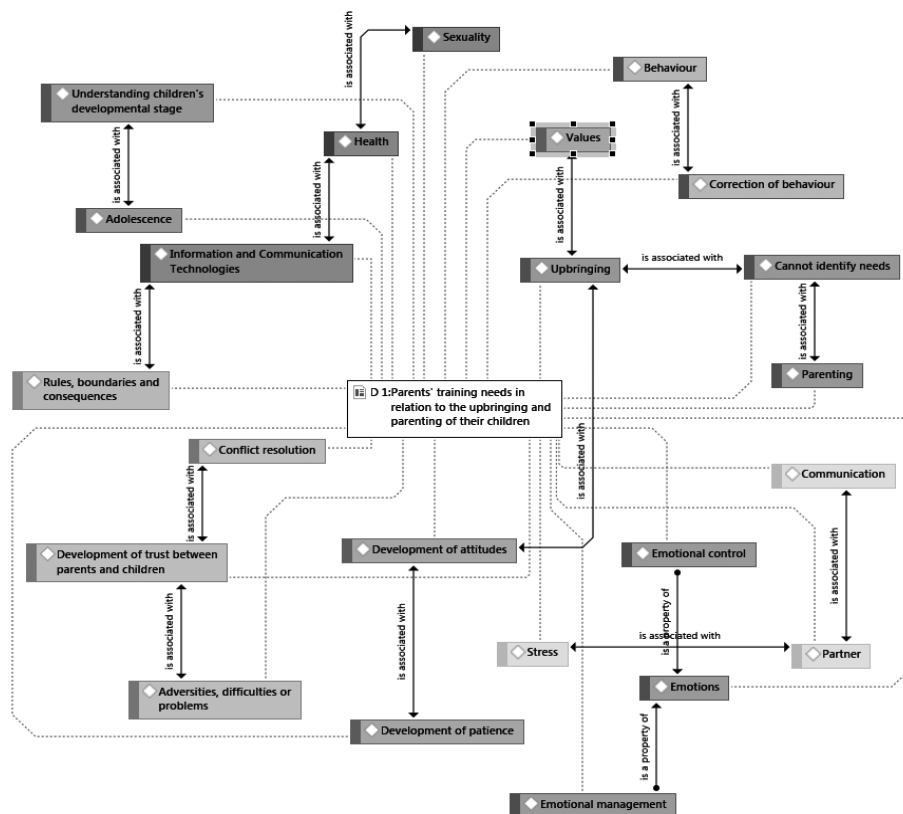
Source: Own elaboration.

4. Discussion and conclusions

The general population of parents requires support in order to carry out their parental role (Rodrigo, 2015) and, thus, it is appropriate to analyse the principles of positive parenting due to their influence on the welfare and development of children (Martínez et al., 2021) and in order to respond to international recommendations (Council of Europe, 2006). Within this framework, an updated assessment has been performed regarding the training and socio-educational needs of parents located in the CARM in relation to the parenting and upbringing of children.

The findings showed higher levels of affection, recognition and shared activities, and lower levels of communication, stress control and family involvement. This is consistent with Peixoto and Tomás (2017), who identified that older parents showed lower mean values in family involvement, communication and stress management. In addition, as the parents' level of education increased, so did family involvement. Nevertheless, the authors found no statistically significant differences in relation to the socio-economic level of the adults.

Moreover, although the parents surveyed reported moderate levels of affection,

they need to maintain respect and affection when arguments take place with their children. These findings are similar to those of Martínez et al. (2007), who concluded that parents needed to gain further knowledge of emotions and learn to manage their emotional world, which would benefit interpersonal relationships based on assertive behaviour (Suárez et al., 2016). However, Limiñana et al. (2018) showed that there was a segment of parents with displays of affection that were few and far between.

In terms of recognition, parents seem to be aware of the importance of celebrating their offspring's achievements and show interest in their concerns, taking them into account in decisions, which is similar to what was found by Morales et al. (2016).

Parents stimulating children's formal and informal learning, providing support, and getting involved and participating in their children's education leads to benefits for teachers and children alike. The results of this research regarding family involvement are different from those of Morales et al. (2016), who stated that adults did not show problems in involvement but rather with parental monitoring and supervision.

In terms of structure, parents require support in setting household rules and consequences, as well as in the distribution of household chores. This could contribute to the prevention of behavioural problems and the formation of habits and values (Torio at al, 2019). Something

similar was stated in previous studies. For example, Martínez et al. (2007) stated that parents needed to know strategies to act assertively and consistently when raising their children, especially when setting clear rules and boundaries. Limiñana et al. (2018) described the inability of certain parents to set rules and boundaries, and also difficulties in correctly stimulating children's autonomy, varying between disparate parenting styles. Nevertheless, Morales et al. (2016) did not detect parental difficulties in setting rules.

Another important aspect is a nonviolent upbringing. The parents surveyed show less than optimal stress management and communication patterns, which could influence the use of more coercive behaviours. It should be taken into account that bringing up and parenting children can impact parents' mental health due to being a major source of stress (Vázquez et al., 2016). Thus, it is important to promote affective and effective communication through open dialogue, since the quality of parent-child relationships is closely linked to emotional expression and management, as well as to communication patterns (Martínez et al., 2007).

Moving on to another point, the parents surveyed mostly prefer group-based parenting programmes, attending at weekends, in the afternoon and when their children are in early childhood. To et al. (2019) agrees with this, as many parents work six days a week, making it difficult to attend from Monday to Friday.

Therefore, non-attendance at programmes is not always due to lack of interest, but rather a lack of availability.

Regarding limitations, the present research followed a non-probability sampling procedure and showed a lower male participation, the sample is not representative and the results are contextualised in one single autonomous community. However, the aim was to better understand the training and socio-educational needs of the parents in the local area with regards to the upbringing and parenting of their children.

Moreover, it would be useful to further analyse this knowledge by means of conducting interviews or holding discussion groups with parents or other informants. This would enable methodological complementarity and the triangulation and cross-checking of the information.

The main implications of this study were the updated detection of content that parents would like parent education programmes to address and the identification of their training preferences in order to attend them. In addition, cluster analysis made it possible to classify parents into subgroups with greater or lesser need for intervention, thus being able to adjust the intensity of interventions. These aspects will tell us whether or not the parent education programmes implemented in the assessed context properly respond to the needs detected, and will also justify the design of any new interventions to promote positive parenting.

References

Ato, M., López-García, J. J., & Benavente, A. (2013). Un sistema de clasificación de los diseños de investigación en psicología [A classification system for research designs in psychology]. *Anales de Psicología, 29* (3), 1038-1059. http://dx.doi.org/10.6018/analesps.29.3.178511

Autonomous Community of the Region of Murcia (CARM) (2021). *Hogares según estructura y tamaño [Households by structure and size].* https://bit.ly/3b4dkOp

Chinchilla, R., & Jiménez, F. (2015). Necesidades de orientación de padres y madres de colegios académicos diurnos de la dirección regional de San José Norte [Parent guidance needs in academic day schools in the San José Norte regional education authority]. *Actualidades Investigativas en Educación, 15* (1), 1-25. https://doi.org/10.15517/aie.v15i1.17630

Council of Europe (2006). *Recommendation Rec 2006/19 of the Committee of Ministers to Member States on policy to support positive parenting. Explanatory Report.* https://bit.ly/3jqOdaT

Esteban, E., & Firbank, O. (2019). Parentalidad positiva, riesgo e intervención: un análisis de los dispositivos de apoyo vigentes en Québec [Positive parenting, risk and intervention: an analysis of the support mechanisms in place in Québec]. *Cuadernos de Trabajo Social, 32* (1), 99-111. https://doi.org/10.5209/cuts.56715

European Commission (2018). *Ethics in Social Science and Humanities.* https://bit.ly/3nZVzFw

García, M. P. (2012). *Fundamentos teóricos y metodológicos de la evaluación de programas [Theoretical and methodological foundations of programme evaluation].* Diego Marín.

Gil, J. A. (2015). *Metodología cuantitativa en educación [Quantitative methodology in education].* UNED.

Golombok, S. (2016). *Familias modernas. Padres e hijos en las nuevas formas de familia [Modern families. Parents and children in the new forms of family].* Siglo XXI.

Hernández, R., & Mendoza, C. P. (2018). *Metodología de la investigación. Las rutas cuantitativa, cualitativa y mixta [Research methodology.*

Quantitative, qualitative and mixed routes]. McGraw-Hill.

Limiñana, A. R., Suriá, R., & Mateo, M. A. (2018). Problemas de conducta infantil y competencias parentales en madres en contextos de violencia de género [Child behavioural problems and parenting skills in mothers in contexts of gender-based violence]. *Gaceta Sanitaria, 32* (1), 35-40. https://doi.org/10.1016/j.gaceta.2017.02.004

Márquez, L., Madueño, M. L., Carballo, A., & Castillo, A. (2019). La participación parental en educación básica desde la perspectiva del profesorado [Parent participation in basic education from the teachers' perspective]. *In Crescendo, 10* (2), 387-407. https://bit.ly/37DFtMa

Martínez, R. A., Iglesias, M. T., & Pérez, M. H. (2021). Validación de la escala de competencias parentales emocionales y sociales para madres [Validation of the scale of emotional and social parental skills for mothers]. *Pedagogía Social, 37* (1), 69-83. https://doi.org/10.7179/psri_2021.37.04

Martínez, R. A., Pérez, M. H., & Álvarez, L. (2007). *Estrategias para prevenir y afrontar conflictos en las relaciones familiares (padres e hijos) [Strategies to prevent and deal with conflicts in family relationships (parents and children)].* Spanish Ministry of Labour and Social Affairs. https://cutt.ly/pt1x8mR

Martínez, R. A., Rodríguez, B., Álvarez, L., & Becedóniz, C. (2016). Evidence in promoting positive parenting through the Program-Guide to Develop Emotional Competences. *Psychosocial Intervention, 25* (2), 111-117. https://doi.org/10.1016/j.psi.2016.04.001

Morales, S., Martínez, M. J., Martín, R., & Nieto, J. (2016). Las prácticas de crianza y la reducción de los problemas de conducta infantil [Parenting practices and reducing child behavioural problems]. *Psicología Conductual, 24* (2), 341-357. https://bit.ly/3tYFxis

Organic Law 3/2018, of 5 December, on the Protection of Personal Data and guarantee of digital rights (2018). *Spanish Official State Gazette, 294,* of 6 December, 9788-119857. https://www.boe.es/eli/es/lo/2018/12/05/3

Peixoto, S., & Tomás, A. (2017). Necessidades nos apoios à parentalidade: perceções e práticas dos profissionais de saúde [Needs in parenting support: perceptions and practices of health professionals]. *Revista de estudos e investigación en psicología y educación, 15* (5), 278-282. https://doi.org/10.17979/reipe.2017.0.05.2760

Rodrigo, M. J. (Coord.) (2015). *Manual práctico de parentalidad positiva [Practical manual on positive parenting].* Síntesis.

Rodrigo, M. J. (2016). Calidad de la implementación en los programas de parentalidad positiva basados en evidencias en España [Quality of implementation in evidence-based positive parenting programmes in Spain]. *Psychosocial Intervention, 25* (2), 63-68. https://doi.org/10.1016/j.psi.2016.02.004

Rodrigo, M. J., Máiquez, M. L., & Martín, J. C. (2010). *Parentalidad positiva y políticas locales de apoyo a las familias. Orientaciones para favorecer el ejercicio de las responsabilidades parentales desde las corporaciones locales [Positive parenting and local policies to support families. Guidance to aid the exercise of parental responsibilities from local corporations].* Ministerio de Sanidad y Política Social. https://bit.ly/3mhZCvf

Rubio, F. J., Trillo, M. P., & Jiménez, C. (2020). Programas grupales de parentalidad positiva: una revisión sistemática de la producción científica [Group positive parenting programmes: a systematic review of scientific research]. *Revista de Educación, 389* (3), 267-295. https://bit.ly/2HtylHl

Suárez, A., Byrne, S., & Rodrigo, M. J. (2016). Validación de la Escala de Parentalidad Positiva (EPP) para evaluar programas presenciales y online de apoyo parental [Validation of the Positive Parenting Scale (PPS) to evaluate face-to-face and online parent support programmes]. *Revista de Estudios e Investigación en Psicología y Educación, 3* (2), 112-120. https://doi.org/10.17979/reipe.2016.3.2.1883

To, S. M., Kwok, C. M., So, Y. Y., & Yan, M. W. (2019). Parent education for migrant mothers of left-behind children in China: A pilot randomized controlled trial. *Family Process, 58* (2), 318-333. https://doi.org/10.1111/famp.12369

Torio, S., Peña, J. V, García, O., & Inda, M. (2019). Evolución de la Parentalidad Positiva: estudio longitudinal de los efectos de la aplicación de

un programa de educación parental [Evolution of positive parenting: Longitudinal study on the effects of applying a parent education programme]. *Revista Electrónica Interuniversitaria de Formación del Profesorado, 22* (3), 109-126. https://doi.org/10.6018/reifop.389621

Vázquez, N., Molina, M. C., & Artazcoz, L. (2016). Validación de un instrumento en español para medir habilidades parentales promovidas en una intervención de educación parental [Validation of an instrument in Spanish to measure parenting skills promoted in a parent education intervention]. *REIRE. Revista d'Innovació i Recerca en Educació, 9* (2), 30-47. https://doi.org/10.1344/reire2016.9.2923

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Educational and social implications of Service-Learning using mixed methods: a meta-analysis

Implicaciones educativas y sociales del Aprendizaje-Servicio con métodos mixtos a través de un meta-análisis

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Abstract:

Service-Learning (SL) aims to improve students' academic knowledge and performance, as well as their civic and social competencies. This study uses the meta-analysis technique to summarise up-to-date research findings on SL in scientific papers that used mixed methods research. The findings indicate that SL leads to significant improvements in students, especially in terms of knowledge acquisition ($d = 1.07$), with a similar effect size for the few studies using a control group ($d = 0.89$), although this effect size is smaller in terms of attitude toward service ($d = 0.45$). There are no significant effects when these variables are compared with dependent variables such as programme duration, gender, or sample size. Moreover, there is high heterogeneity in the evaluation methods and measurement instruments used in the articles. Although research on SL is increasing significantly, the methodological quality of most of the studies reviewed is quite low. It can be concluded that SL is beneficial to the students involved in the service, however, in order

to properly appreciate the different scenarios of the findings, more rigorous research designs are required. We would recommend creating uniform research protocols and extending SL using mixed methodology across every discipline, including the arts, and at every level of education.

Keywords: Service-Learning education, mixed methods, meta-analysis, higher education, knowledge, social competency.

Resumen:

El Aprendizaje-Servicio (ApS) se presenta como un modelo capaz de mejorar la calidad educativa, el rendimiento académico y las competencias cívicas y sociales de los estudiantes. Este estudio pretende, a través de un meta-análisis, sintetizar los resultados de investigación publicados hasta la fecha sobre ApS en artículos científicos que han empleado un enfoque mixto de investigación. Los resultados indican que el ApS parece producir mejoras importantes en los estudiantes, principalmente en la adquisición de conocimiento ($d=1.07$), con un tamaño del efecto igualmente grande en los escasos estudios con grupo control ($d=0.89$), aunque menor en la actitud hacia el servicio ($d=0.45$), no encontrándose efectos significativos cuando se comparan estas variables con variables dependientes, como duración del programa, género y tamaño de la muestra. Además, hay una gran heterogeneidad en los modos de evaluación y en los instrumentos de medida. La mayoría de los estudios tienen una calidad metodológica baja, a pesar de que la investigación sobre el tema se va incrementado notablemente. Se concluye que el ApS produce beneficios en los estudiantes que llevan a cabo el servicio, pero para poder apreciar la casuística de los resultados, los diseños de investigación tendrían todavía cierta capacidad de mejora. Se sugiere elaborar protocolos de investigación homogéneos y se aconseja que el ApS con metodología mixta se extienda a las diferentes disciplinas, entre ellas las artísticas, y a todos los niveles educativos.

Descriptores: aprendizaje servicio, métodos mixtos, meta-análisis, educación superior, conocimientos, competencia social.

1. Introduction

In the current educational context that places great emphasis on information and technology, traditional teaching methodologies are questioned and it is advisable to look for alternatives that take into account academic training, students' personal growth and their participation in the community (Dolgon et al., 2017; Hébert & Hauf, 2015). The social dimension of education is important as it takes place in a given social setting, marked by its own cultural, political and economic characteristics. Education that considers the social reality should contemplate objectives relating to beneficial actions for the community from a critical approach (Deeley, 2015).

One of the emerging alternatives that combines both individual and social

dimensions is Service-Learning (SL), "a method for combining educational success with social commitment: learning to be competent while being useful to others" (Batlle, 2011, p. 51). This methodology involves first detecting the problems in society, studying and planning strategies to improve them and implementing actions, within the framework of a continuous critical reflective exercise by students (Lewellyn & Kiser, 2014).

One of the fundamental principles of this methodology is meaningful and experiential learning which improves the acquisition of content and activates cognitive processes by enabling a direct relationship between academic content and the reality of the environment (Rodríguez-Izquierdo, 2020). Knowledge in SL is fostered when students become aware and in control of their own learning and propose personal self-efficacy and self-motivation strategies (Ciesielkiewicz & Nocito, 2018). Unlike other experiential methodologies, SL prioritises systematic learning and service and integrates the latter into the academic curriculum (Zimmerman, 2020). It also promotes citizen participation and social responsibility (Wang et al., 2019). Moreover, it brings benefits to all players involved in education and increases satisfaction and social cohesion (Celio et al., 2011).

Mixed methods research (MM) is a growing approach that combines quantitative and qualitative methodologies (Frels & Onwuegbuzie, 2013), presenting them together as a means of

addressing their potential limitations so as to achieve increased validity of the findings (Hamui-Sutton, 2013). Thus, according to Johnson, Onwuegbuzie and Turner (2007) it is the type of study in which a researcher or team of researchers combine and integrate elements of qualitative and quantitative approaches (e.g., data collection, analysis and inference techniques) in order to further understand and corroborate the phenomenon studied. It is this integration that characterises and differentiates MMs from multi-methods, which include the use of more than one data collection method in a study or group of related studies (Hesse-Biber, 2016).

The integration of MM approaches goes beyond combining the two methods and helps to create a new whole and a holistic understanding of the phenomenon studied (Johnson et al., 2007). It results in a wide variety of designs, whereby the main ones and their variants are sequential-explanatory, sequential-exploratory, sequential-transformative, concurrent triangulation, concurrent nested and concurrent transformative.

Specifically, in SL a large number of studies have taken into account MMs to evaluate their research procedures and findings (Cumberland et al., 2019) in different disciplines such as Social Sciences (Shostak et al., 2019), among others. Tashakkori and Teddlie (2010) highlight the challenge of bringing together mixed research based on a theoretical-conceptual framework and invite the scientific community to work on the quality of

quantitative-qualitative methodological complementarity of studies using this approach (Wartenweiler, 2018).

In educational practice, this type of research (Schmid et al., 2020) is increasingly promoted in social areas. Systematic reviews and meta-analyses are the most appropriate methodologies, as they summarise "the scientific information available, increase the validity of the conclusions of individual studies and identify any areas of uncertainty which..." must be further examined (Barrera-Algarín et al., 2017, p. 261).

Nevertheless, only a few meta-analyses have studied SL, although their effects are promising. White (2001) found a moderate relationship between participation in SL and the academic achievement ($d=0.86$), self-concept ($d=0.51$), and social and personal development ($d=0.58$) of secondary school students, with similarly positive effects in university. Conway et al. (2009) went one step further with programmes that included structured reflection, longer service time and inclusion of the service in the curriculum.

Stressing the factors associated with the effectiveness of SL, Celio et al. (2011) found significant differences in attitudes towards oneself, school and learning, civic engagement, social skills and academic performance in students at different educational stages. Yoiro and Ye (2012) also found positive effects on social ($d=0.34$), personal ($d=0.28$) and cognitive ($d=0.52$) development and moderate effects depending on the research design, type of reflec-

tion and measurement or when the service experience is optional or mandatory. In addition, Warren (2012) shows the increase in student learning outcomes ($d=0.32$) regardless of the instruments used to measure them.

In this theoretical-methodological context, this research paper is justified since:

a) The increase in research on SL demonstrates its dissemination, especially in Europe and Latin America (Hayward & Li, 2017).

b) This growth encourages the use of quantitative systematic reviews.

c) There are few meta-analyses on SL, the last two being the studies by Warren and Yoiro and Ye, from 2012, almost a decade ago; and finally.

d) None of the known meta-analyses on SL have focused on research that has employed MMs, the value of which in educational research is increasingly discussed (Ponce & Pagan, 2015). Most of the literature on MMs could be considered generic (Creswell & Plano, 2017) and, therefore, its use in developing the rationale in the context of a particular discipline will help to strengthen the findings and the mixed research itself.

Therefore, the aim of this paper is to synthesise, mainly quantitatively, the research findings published to date on SL methodology in studies that used MMs.

2. Method

A meta-analysis was performed by integrating quantitative primary studies that give us a pooled estimate of effect size (Botella & Sánchez-Meca, 2015). Contextual and methodological variables were also qualitatively analysed.

2.1. Search strategy

The review of literature related to SL was conducted using the databases of the Education Resources Information Center (ERIC), Dialnet, SCOPUS and Web of Science (WoS), as they include an extensive scope of research journals that provide a representative sample. The descriptors used, both in English and Spanish, were '*Mixed Methods Research'* and '*Service-Learning'* in the title, keywords or abstract according to the requirements of each platform.

2.2. Inclusion criteria

The inclusion criteria established for selecting the primary studies were:

a) Use of MMs, where there is evidence of quantitative and qualitative research phases with integration and/or complementarity of the findings.

b) Published under a peer-review system.

c) With abstract and access to the full text.

d) Languages English or Spanish, with no time range established.

e) Focusing on the analysis of SL in any discipline, field or context.

f) With intervention process and data that allow for pre-post comparison in order to be able to estimate a standardised effect size (hereafter ES). A randomised design with a control group was recommended, but initially we also included studies with at least a quantitative pre-post evaluation.

g) With qualitative data systematically analysed using authors' own strategies or techniques.

2.3. Review process: phases and flow chart

The review process was carried out during the last quarter of 2019. Graph 1 summarises the review process, thus fulfilling the PRISMA criteria (Hutton et al., 2016).

We found 261 articles, 69 of which were excluded, in the first round, as the full text was not available. All 192 were re-analysed (second round) but only 103 met the inclusion criteria (inter-rater reliability 87.2%). Any discrepancies were resolved among the four researchers and the assessment of the studies was dichotomous and qualitative.

These 103 documents (third round) were then carefully read, which led to the elimination of another 10 documents since they were not related to SL. The few discrepancies that arose were discussed by the researchers.

Next, in a fourth round, we looked more closely at the quantitative data collected in the 93 documents: the

intervention had to include pre-post evaluation measurements, the measurement had to be quantitative, and the results section had to include the sample size, mean and standard deviation (SD) for the pre-post evaluation, and where only partial information was available, it had to be sufficient to reliably obtain the ES. Regarding the qualitative part, the papers had to include strategies or qualitative techniques evidencing that patterns of similar ideas, concepts or themes had been identified.

Only 23 documents fulfilled the criteria in the end.

2.4. Coding system

Although initially a more detailed categorisation was proposed, due to the number of articles found and, especially, their broad heterogeneity, the results were grouped into two wide-ranging categories that measure the effectiveness of SL in relation to:

1) *Knowledge*: the acquisition of knowledge in different subjects or the perception of improved knowledge, motivation, self-efficacy, personal skills and competencies or improved behavioural habits.

2) *Social development*: improved empathy in terms of dealing with people linked to the experience and also fulfilment of the needs of special groups through the development of civic competencies, social responsibility, critical citizenship and perception of social justice.

GRAPH 1. Flow chart.

INITIAL DOCUMENTS=261

ROUNDS		EXCLUDED
First round	Documents obtained: 261	• 69 text not complete Total excluded= 69
Second round	Documents obtained: 192 (Inter-rater reliability= 87.2%)	• 31 duplicates • 18 in languages other than Spanish and English • 9 not related to MM • 2 without an abstract • 15 theoretical studies • 7 not related to SL • 7 studies about volunteering Total excluded= 89
Third round	Documents obtained: 103	• 10 documents not related to SL Total excluded= 10
Fourth round	Documents obtained 93	• 18 without quantitative data or only descriptive data • 14 did not include a pre-post evaluation or only had a cross-sectional design • 9 only provided data about proportions • 7 did not provide the SD or exact p value • 5 only presented the results in graphs • 5 provided the result of the pre-post comparison statistical test but not the raw data. • 4 used a design that does not allow the ES to be calculated • 3 only used multivariate analyses, such as linear regression or MANOVA • 2 only provided the p value • 2 evaluated an irrelevant variable (for the purposes of this study) • 1 excluded because of duplicate data Total excluded= 70

FINAL DOCUMENTS=23

Source: Own elaboration.

2.5. Statistical analysis

The results of each study were summarised in pooled effect sizes and weighted to account for the different weights of the studies according to their sample size. These are standardised mean differences, in this case Cohen's d. For Cohen (1988), $d > 0.80$ is considered a large effect, between 0.50 and 0.80 medium, between 0.30 and 0.50 small and < 0.30 irrelevant. The value of d was estimated for each individual study, as was a mean value for the study total for each category.

In addition, the I2 value was obtained as an estimate of the percentage of heterogeneity. Given that the studies included vary considerably in the areas they focus on, the type of subjects, the type of activities and the duration of the community action they involve, we assume that this value will be high and, therefore, we have sought to explain this heterogeneity by means of a meta-regression analysis using the variables that could determine this heterogeneity. Given the general paucity of information available, only the percentage of men and women, the duration of the SL activity and the sample size could be included as IVs.

Analyses were performed using the "metan" and "metareg" commands in the statistical software Stata, version 13.1 for Windows.

3. Results
3.1. Overview of the studies

The studies, identified with a number to aid reading (Table 1), have been analysed quantitatively and qualitatively according to contextual and methodological variables.

TABLE 1. Descriptive results of the selected documents.

No.	Authors	N*	Gender (% women)	Average age (SD)
	Knowledge			
1	Cumberland et al. (2019)	35	51.42	25
2	Shostak et al. (2019)	18	ND**	ND
3	Knight-McKenna et al. (2019)	9	100	20 (1.2)
5	Howlett et al. (2019)	22	95.5	20-23
7	Schneider-Cline (2018)	46	97	ND
8	Wartenweiler (2018)	16	60	15-16
9	Gerholz et al. (2017)	86	70	24
11	Gomez-Lanier (2016)	14	ND	ND
14	Stevahn et al. (2016)	47	68.1	20-60, aprox.
15	Peralta et al. (2015)	50	68	21.9 (8.3)
22	Cone (2009)	81	91.3	67 % entre 18-21

	Social development			
3	Knight-McKenna et al. (2019)	9	100	20 (1.2)
4	Brizee et al. (2019) CG	33	81.8	ND
6	Li et al. (2019) CG	40/20	53.3	19.8 (1.01)
8	Wartenweiler (2018)	16	60	15-16
9	Gerholz et al. (2017)	36	70	24
10	Sterk Barret (2016)	272	64	ND
12	Schvaneveldt & Spencer (2016)	68	98.5	19.80 (1.41)
13	Ocal & Altinok (2016) GC	78	43.75	12-14
16	Hwang et al. (2014)	210	ND	18 (0.27)
17	Seider (2012)	362	61.33	ND
18	Seider et al. (2012) CG	359/37	61.3	ND
19	Seider et al. (2011) CG	362/37	67.6	18-21
20	Lowe & Medina (2010)	17	ND	22.1 (4.2)
21	Hirschinger-Blank et al. (2009)	32	62.5	21
23	Simons & Cleary (2005)	59	85	20 (8.03)

CG=with Control Group.
N*= the N of each research study; for CG, the N is added second.
No.= corresponding to the descriptive analyses of the text.
NA**= not available.
Source: Own elaboration.

Thus, the following aspects were brought to our attention:

Years of publication: They range from 2005-2019, with the most productive five-year period being 2015-2019 with 65.22% of the total, followed by 2010-2014 with 21.74% and 2005-2009 with 13.04%.

Objectives: The research aims to discover the impact of the experience on students' acquisition of knowledge (1, 2, 3, 5, 7, 9, 10, 11, 13, 14, 15, 20, 21, 22, 23), behavioural habits (8), attitudes towards learning or the social context (1, 3, 6, 14, 20, 21), civic competencies and social responsibility (3, 9, 11, 12, 13, 14, 16, 18, 20, 21, 23), critical citizenship (4) spiri-

tuality (10) and perception of social justice (6, 18, 19).

Context: In Education, culturally and linguistically diverse school environments stand out with interventions in early childhood care (3), Australian Aboriginal population (15) or initiatives for the use of technologies in second language teaching (5). Social justice (6, 18), critical citizenship (4), spiritual development (10) and volunteering in orphanages (12) are all advocated. Only one single study addresses how family beliefs on service influence their children (17). In Health Sciences, the focus is on the care of the elderly (16) and Parkinson's patients (1). In Economics, the needs of the beneficiaries of the ser-

vice are investigated with statistical projections (9).

Disciplines: The majority belong to Humanities and Social Sciences: 74.99% relate to Higher Education, with experiences for the most part aimed at social justice (6, 8, 14, 17, 19, 21) and, to a lesser extent, 16.66% to Secondary Education. Studies in Health Sciences and Sociology also stood out (12).

Sample: 66.6% have a sample equal to or less than 100 participants and 33.33% greater than 100, with a predominance of Higher Education students (39.1%). A few studies randomly assign subjects to the control group (12,18,19). In all studies, the sampling is incidental, although most do not give the mean age of participants or only report an age range.

Limitations and methodological recommendations: The most frequent limitation is the size of the sample since it is small (1, 2, 4, 5, 7, 9, 11, 14, 20, 23), homogeneous (1, 2, 5, 6, 12, 19, 23) and, for the most part, from disciplines that are sensitive to social problems (36). The allocation of subjects to groups is unequal and without triple-blind randomisation (4, 9, 12, 16, 21, 22), which hinders generalisation of results (1, 4, 6, 8, 10, 16, 17) and poses a threat to internal validity (8, 22). Some studies highlight the lack of follow-up evaluation (9), added to the fact that it is not possible to demonstrate causal relationships (17, 20), with weak pilot and intrasubject studies (9, 23) and few correlational (17) and longitudinal studies (5, 6, 12), leading to conclusive findings which could, however, be more comprehensive (8, 23).

In contrast, the studies recommend the expansion and diversity of the sample (3, 7, 8, 21). Longitudinal designs would allow evaluation of long-term programme effects (6, 8, 12, 14, 16), and therefore multiple projects in different semesters and academic years are suggested (3, 4, 7, 14, 23). A holistic evaluation (6, 14) with triangulation of participants (3, 17) and techniques for greater contrast of results (1, 3, 21, 23) are also proposed. The systematic analysis of qualitative data completes the quantitative results regarding SL (14, 17, 21), since biographical accounts (23) and daily narratives enhance the evaluation of the experience (2). The reflective process allows us to understand changes in social competence in students with lower levels of self-esteem and self-efficacy (12) and the inclusion of audiovisual recordings of interactions between students and beneficiaries is a resource for self-evaluation that strengthens the findings (3).

3.2. Outcome of the meta-analysis

The evaluations include a wide variety of variables and ways of measuring them, and in several cases standardised and validated instruments are not used (2, 4, 5, 7, 8, 9, 11, 12). Therefore, a total quantitative measurement for each variable is established in cases where information is only given for each item on the questionnaire (items could be combined into one total measurement using the relevant formulas to combine means and standard deviations of specific questions evaluating the same construct). In this way, it was possible to provide sufficient information to estimate a standardised ES that can be compared in all studies.

TABLE 2. Descriptive results (means and standard deviation of effect size *d*) from pre-post evaluations of intervention with SL and studies that included a control group.

Condition	No. of studies	N	Mean *d* (95% CI)	Z	*p*	I²
Pre-post comparisons						
Knowledge	11	341	1.069 (0.912,1.226)	13.32	<.001	85.1 %
Social development	13	1201	0.448 (0.386, 0.511)	14.03	<.001	69.6 %
Control Group						
Social development	5	1093	0.887 (0.684, 1.089)	8.58	<.001	82.4 %

CI: Confidence interval; I2: percentage of heterogeneity, all statistically significant (p<.001).
Source: Own elaboration.

Moreover, only a minority of studies present the relevant data on the control group (see Graph 4) and, therefore, we decided to gather only those that included the pre and post results separately. The five studies with a control group, focusing on social development, were analysed separately, since the estimates of the effects are not comparable in both types of designs (experimental and quasi-experimental). Additionally, only two studies provided information on the effect of SL activity on service recipients in the community (1, 16). The data show very small effects, and information is generally scarce.

Table 1 presents the 23 studies selected with 29 items of data collected, as some studies investigate several non-combinable variables from the same or different categories. Table 2 shows the results grouped by category with the mean ES and its 95% confidence interval. In the *knowledge* category the effect was large (*d*=1.07), however, in the *social develop-ment* category it was small (*d*=0.45). For the five studies that used a control group, an effect that can be considered large (*d*=0.89) was found.

Graphs 2-4 show the forest plot for each of the three conditions listed, including the studies with control group. The forest plots give information on the ES of each study, with a 95% confidence interval and the relative weight of each study (which depends upon its sample size and the inter-subject variability in the results). Regarding the studies evaluating *knowledge* (Graph 2) only one clearly crosses the 0 line (the solid vertical line) in its confidence interval, which reinforces the idea that the intervention using SL on this condition had a positive effect. This can be seen in the dashed vertical line that marks the mean of all the studies. In these graphs, the shaded area of the effects represents the weight of each study and the diamond at the bottom shows the size of the heterogeneity. However, regarding the

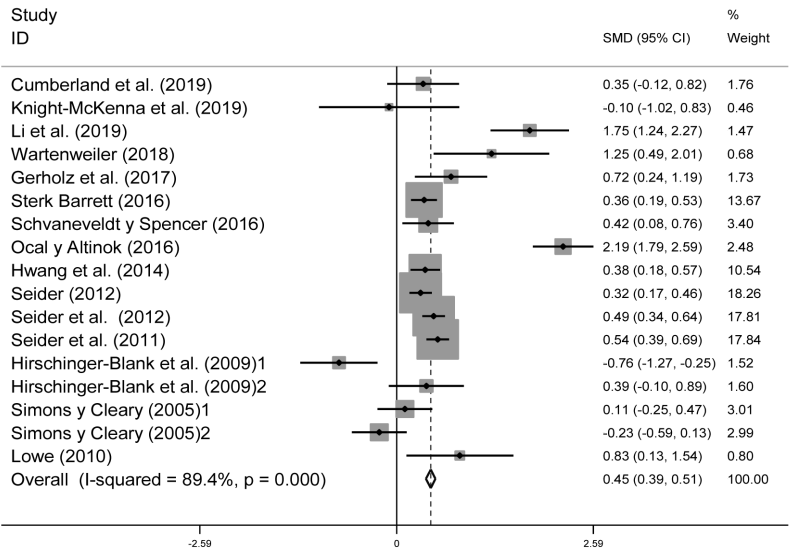*social development* category (Graph 3), 4 studies cross the 0-effect line and 2 even show a clearly negative result. In the con- trol group studies (Graph 4), 4 out of the 5 show a clearly positive effect of change due to SL activity.

GRAPH 2. Effect sizes for each study with *knowledge* as the DV.
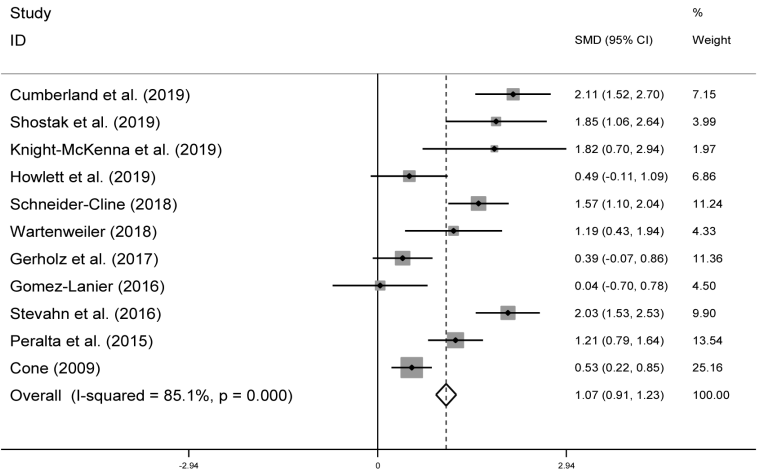
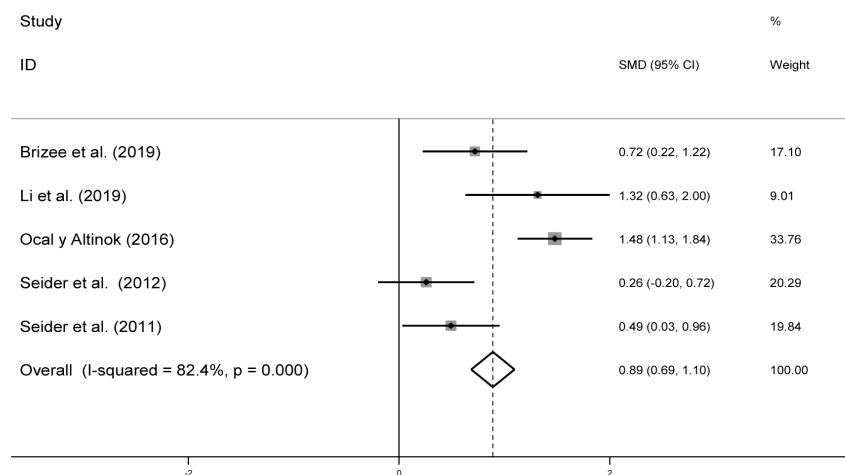| Study ID	SMD (95% CI)	% Weight
Cumberland et al. (2019)	2.11 (1.52, 2.70)	7.15
Shostak et al. (2019)	1.85 (1.06, 2.64)	3.99
Knight-McKenna et al. (2019)	1.82 (0.70, 2.94)	1.97
Howlett et al. (2019)	0.49 (-0.11, 1.09)	6.86
Schneider-Cline (2018)	1.57 (1.10, 2.04)	11.24
Wartenweiler (2018)	1.19 (0.43, 1.94)	4.33
Gerholz et al. (2017)	0.39 (-0.07, 0.86)	11.36
Gomez-Lanier (2016)	0.04 (-0.70, 0.78)	4.50
Stevahn et al. (2016)	2.03 (1.53, 2.53)	9.90
Peralta et al. (2015)	1.21 (0.79, 1.64)	13.54
Cone (2009)	0.53 (0.22, 0.85)	25.16
Overall (I-squared = 85.1%, p = 0.000)	1.07 (0.91, 1.23)	100.00

CI: confidence interval. ES: effect size. Overall: total effect. I-squared: percentage of heterogeneity. Source: Own elaboration.

GRAPH 3. Effect sizes for each study with *social development* as the DV.

Study ID	SMD (95% CI)	% Weight
Cumberland et al. (2019)	0.35 (-0.12, 0.82)	1.76
Knight-McKenna et al. (2019)	-0.10 (-1.02, 0.83)	0.46
Li et al. (2019)	1.75 (1.24, 2.27)	1.47
Wartenweiler (2018)	1.25 (0.49, 2.01)	0.68
Gerholz et al. (2017)	0.72 (0.24, 1.19)	1.73
Sterk Barrett (2016)	0.36 (0.19, 0.53)	13.67
Schvaneveldt y Spencer (2016)	0.42 (0.08, 0.76)	3.40
Ocal y Altinok (2016)	2.19 (1.79, 2.59)	2.48
Hwang et al. (2014)	0.38 (0.18, 0.57)	10.54
Seider (2012)	0.32 (0.17, 0.46)	18.26
Seider et al. (2012)	0.49 (0.34, 0.64)	17.81
Seider et al. (2011)	0.54 (0.39, 0.69)	17.84
Hirschinger-Blank et al. (2009)1	-0.76 (-1.27, -0.25)	1.52
Hirschinger-Blank et al. (2009)2	0.39 (-0.10, 0.89)	1.60
Simons y Cleary (2005)1	0.11 (-0.25, 0.47)	3.01
Simons y Cleary (2005)2	-0.23 (-0.59, 0.13)	2.99
Lowe (2010)	0.83 (0.13, 1.54)	0.80
Overall (I-squared = 89.4%, p = 0.000)	0.45 (0.39, 0.51)	100.00

CI: confidence interval. ES: effect size. Overall: total effect. I-squared: percentage of heterogeneity. "1,2": indicates measurements of different constructs within the same study. Source: Own elaboration

GRAPH 4. Effect sizes for each study with social development as the DV
(studies with control group).

Study ID		SMD (95% CI)	% Weight
Brizee et al. (2019)		0.72 (0.22, 1.22)	17.10
Li et al. (2019)		1.32 (0.63, 2.00)	9.01
Ocal y Altinok (2016)		1.48 (1.13, 1.84)	33.76
Seider et al. (2012)		0.26 (-0.20, 0.72)	20.29
Seider et al. (2011)		0.49 (0.03, 0.96)	19.84
Overall (I-squared = 82.4%, p = 0.000)		0.89 (0.69, 1.10)	100.00

CI: confidence interval. ES: effect size. Overall: total effect. I-squared: percentage of heterogeneity.
Source: Own elaboration.

In the meta-regression analyses, no statistically significant effect was found for programme duration, gender, or sample size in any of the category-specific comparisons. Thus, with respect to DV *knowledge,* the coefficients of the meta-regression were: -0.01 for sample size ($p=.670$), -0.07 for duration of activity ($p=.877$) and -0.01 for distribution by gender ($p=.496$). The values are similar for the other DV and for the studies with control group. Given the heterogeneity among the studies with respect to the method of evaluating their specific DV, the type of sample, type of students and the scarce information offered by many of them, it was not possible to make valid groupings to analyse other factors that could be causing the high I2 values. Age was not included, as most studies consider this variable to be of little relevance in SL, which could be

the very reason why it is not specifically included in many studies.

4. Discussion

SL is based on two major theoretical models that influence its measurement. The first focuses on the effects of the programmes, with quasi-experimental designs that seek to overcome their own methodological limitations due to the nature of the service (Eyler, 2011), and the second on the qualitative understanding of the service and its implications, with flaws in its ontology and epistemology. Such shortcomings, explicit in many studies for measuring SL, have led to the proposal of holistic designs such as MMs, which pose a greater methodological challenge due to the requirement to integrate quantitative and qualitative approaches (Bringle et al.,

2011). In this search for methodologies, the findings of the studies analysed confirm that SL promotes its fundamental principles, i.e., the improvement of academic knowledge and citizenship skills. At the same time, it is evident that, although research on the subject is increasing, there is enormous heterogeneity in the application of SL, its contexts and evaluation.

In the present review, we have taken into account relevant studies using MMs and reviewed what they evaluate, how they evaluate it and the type and size of the sample. It should be noted that most of the papers that met the minimum criteria for the review have a methodological quality with room for improvement. With only a few exceptions, it was observed that they do not use standardised and previously validated instruments. Furthermore, 47.8% of the studies provide descriptive data on the items, but not on the total scales. The sample size of many of the papers is very small, nevertheless it was considered important to include them in order to reflect the current state of MMs research on SL, its potential usefulness and the shortcomings that future studies should address and try to solve. However, the studies with a methodological design including a control group offer significant results. In this respect, Bringle et al. (2011) along with the consensus of a wide range of authors (Lewellyn & Kiser, 2014; Waterman & Billig, 2003) highlight that SL research must, among other aspects: control or explain the differences between the groups forming part of the research; employ psychometrically correct, multiple-indicator measures that include, in

addition to participant self-reports, assessments from external observers to counteract expected response bias in the social context; systematically analyse qualitative data that enrich quantitative data (Selmo, 2015); use multiple research methods converging the results to increase the understanding, reliability and generalisability of the results; and use designs that support the conclusions reached so that they are not arbitrary.

The findings are consistent with other meta-analyses that also found moderate effect sizes in variables related to acquired knowledge and self-efficacy, such as academic achievement (Celio et al., 2011; White, 2001), cognitive development (Yoiro & Ye, 2012) and learning (Warren, 2012). At the same time, the variables associated with personal and social development obtained much smaller effect sizes, information that is in line with that of other previous quantitative reviews (Conway et al., 2009).

In addition, the high percentage of studies carried out at university is a reflection of the many initiatives recently undertaken in this context over recent decades to build a socially responsible learning environment that promotes students' integral development. The management of this methodology in Higher Education requires the development of students' critical thinking, based on logical and moral reasoning, in order to understand the connections between the socio-cultural and economic-political contexts (Deeley, 2015). SL promotes cognitive processes in students through the challenge of solving

problematic and unstructured situations in the service where they use the different perspectives and knowledge acquired in the classroom, guided by continuous critical reflection (Fitch et al., 2013).

The disciplines that have used SL are mainly related to the Social Sciences, especially in Higher Education teacher training. It is less common in areas such as Teaching of the Arts, which have shown so many socio-cultural and academic benefits (Chiva-Bartoll et al., 2019). This methodology should also be considered at other educational levels, such as Primary and Secondary Education in order to socially involve as many students as possible (Dolgon et al., 2017).

Moreover, the small number of studies finally selected and their high heterogeneity explain the high I2 values. The meta-regression analyses indicate, in any case, that neither sample size, gender nor activity duration have a statistically significant effect on mean effect sizes. Furthermore, it was not possible to establish categories on the evaluation instrument, the students' areas of specialisation or other aspects that may be relevant, given that the studies differ in these aspects. It stands to reason that this may be the best explanation for the heterogeneity.

With a couple of exceptions, the selected studies do not provide sufficient quantitative data on the effect of the service on recipients, and this is a recurring need that is emerging in literature (Camilli et al., 2018; Rubio et al., 2015). The social impact of the activity itself is considered

to be of great importance and so it seems pertinent to study this aspect in greater depth.

5. Conclusions

In studies using MMs, SL shows positive effects on acquired knowledge, perceptions of self-efficacy and skills, and moderately positive effects on students' social attitude, motivation and empathy, finding no significant effects when comparing these variables with dependent variables such as programme duration, gender and sample size.

Taking into account the limitations of the studies chosen, especially the high heterogeneity of the studies in terms of geographical location, linguistic and cultural aspects, type of community service and target population, among other aspects, we believe that there are aspects that can be extracted in order to boost research:

a) SL appears to lead to improvements that, generally, have a moderate effect and may be significant. Therefore, it would be fitting to extend it to a wider range of disciplines and educational levels.

b) It would be necessary to carry out more rigorous studies on SL using common, validated and comparable measurement instruments, in order to specify in the results the aspects related to improvement, in addition to studies with uniform protocols on design aspects, in particular with control groups and randomisation.

Finally, it should be noted that, although MMs require thorough knowledge of research methodologies, it seems that they are not yet sufficiently consolidated in SL. The conceptual and methodological integration of quantitative and qualitative methods can produce high-quality primary research that fosters evidence-based practice, with rigorous data analysis continuing to be necessary for a comprehensive understanding of SL. Due to the academic and social benefits obtained by applying SL, and the research benefit provided by the results of using MMs (Tashakkori & Teddlie, 2010), we believe it is necessary to continue to effectively further examine this fruitful field of work.

References

Barrera-Algarín, E., Malagón-Bernal, J. L., & Sarasola-Sánchez, J. L. (2017). El meta-análisis como elemento de innovación educativa de la práctica basada en la evidencia en trabajo social [The meta-analysis as an element of educational innovation of the evidence-based practice in social work]. *Profesorado, Revista de Currículum y Formación del Profesorado, 21* (3), 259-75.

Batlle, R. (2011). ¿De qué hablamos cuando hablamos de Aprendizaje Servicio? [What do we talk about when we talk about Service Learning?] *Crítica, 972,* 49-54.

Botella, J., & Sánchez-Meca, J. (2015). *Meta-análisis en ciencias sociales y de la salud [Meta-analysis in health and social sciences].* Síntesis.

Bringle, R. G., Hatcher, J. A., & Williams, M. J. (2011). Quantitative approaches to research on international Service Learning: Design, measurement and theory. In R. G. Bringle, J. A. Hatcher, & S. G. Jones (Eds.), *International Service Learning: Conceptual frameworks and research* (pp. 275-290). Stylus Editorial.

Brizee, A., Pascual-Ferrá, P., & Caranante, G. (2019). High-impact civic engagement: outcomes of community-based research in technical writing courses. *Journal of Technical Writing and Communication, 50* (3), 224-251. https://doi.org/10.1177/0047281619853266

Camilli, C., García, M., & Galán, A. (2018). ¿Es posible evaluar los resultados de proyectos de Aprendizaje-Servicio? Las evidencias como clave del éxito [Is it possible to evaluate the results of Service-Learning projects? Evidence as a key to success]. In M. Ruiz-Corbella & J. García-Gutiérrez (Eds.), *Aprendizaje-Servicio. Los retos de la evaluación* (pp. 7-12). Narcea.

Celio, C., Durlak, J., & Dymnicki, A. (2011). A Meta-analysis of the impact of Service-Learning on students. *Journal of Experiential Education, 34* (2), 164-181.

Chiva-Bartoll, O., Salvador-García, C., Ferrando-Félix, S., & Cabedo-Mas, A. (2019). Service learning in musical education: Literature review and recommendations for practice. *Revista Electrónica Complutense de Investigación en Educación Musical, 16,* 57-74. https://dx.doi.org/10.5209/reciem.62409

Ciesielkiewicz, M., & Nocito, G. (2018). Motivation in service-learning: An improvement over traditional instructional methods. *Teknokultura, 15* (1), 55-67. http://dx.doi.org/10.5209/TEKN.58258

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Erlbaum Editorial.

Cone, N. (2009). A bridge to developing efficacious science teachers of all students: Community-based service-learning supplemented with explicit discussions and activities about diversity. *Journal of Science Teacher Education, 20* (4), 365-383. http://dx.doi.org/10.1007/s10972-009-9137-8

Conway, J., Amel, E., & Gerwien, P. (2009). Teaching and learning in the social context: A meta-analysis of service learning's effects on academic, personal, social, and citizenship outcomes. *Teaching of Psychology, 36* (4), 233-245. http://dx.doi.org/10.1080/00986280903172969

Creswell, J., & Plano, V. (2017). *Designing and conducting mixed methods research*. SAGE.

Cumberland, D. M., Sawning, S., Church-Nally, M., Shaw, M. A., Branch, E., & LaFaver, K. (2019). Experiential learning: Transforming Theory into practice through the parkinson's disease buddy program. *Teaching and Learning in Medicine, 31* (4), 453 465. http://dx.doi.org/10.1080/10401334.2019.15 80583

Deeley, S. J. (2015). *Critical perspectives on Service-Learning in higher education*. Palgrave MacMillan.

Dolgon, C., Mitchell, T. D., & Eatman, T. K. (Eds.) (2017). *The Cambridge handbook of service learning and community engagement*. Cambridge University Press.

Eyler, (2011). What international Service Learning research can learn from research on Service Learning. In R. G. Bringle, J. A. Hatcher, & S. G. Jones (Eds.), *International Service Learning: Conceptual frameworks and research* (pp. 225-371). Stylus.

Fitch, P., Steinke, P., & Hudson, T. (2013). Research and theoretical perspectives on cognitive outcomes of Service Learning. In P. Clayton, R. Bringle, & J. Hatcher (Eds.), *Research on Service-Learning. Conceptual Frameworks and Assessment* (pp. 57-85). Stylus.

Frels, R., & Onwuegbuzie, A. (2013). Administering quantitative instruments with qualitative interviews: A mixed research approach. *Journal of Counseling and Development*, *91*, 184-194. http://dx.doi.org/10.1002/j.1556-6676.2013.00085.x

Gerholz, K.-H., Liszt, V., & Klingsieck, K. B. (2017). Effects of learning design patterns in service learning courses. *Active Learning in Higher Education, 19* (1), 47-59. http://dx.doi.org/10.1177/1469787417721420

Gómez-Lanier, L. (2016). The Effects of an Experiential Service-Learning Project on Residential Interior Design Students' Attitudes toward Design and Community. *International Journal for the Scholarship of Teaching and Learning*, *10* (2), 1-7. http://dx.doi.org/10.20429/ijsotl.2016.100211

Hamui-Sutton, A. (2013). Un acercamiento a los métodos mixtos de investigación en educación médica [A mixed methods approach to medical education research]. *Investigación en Educación Médica*, *2* (8), 211-216.

Hayward, L. M., & Li, L. (2017). Sustaining and improving an international service-learning partnership: Evaluation of an evidence-based service delivery model. *Physiotherapy Theory and Practice*, *33* (6), 475-489. http://dx.doi.org/10.1080/09593985.2017.1318425

Hébert, A., & Hauf, P. (2015). Student learning through service-learning: Effects on academic development, civic responsibility, interpersonal skills and practical skills. *Active Learning in Higher Education, 16* (1), 37-49. https://doi.org/10.1177/1469787415573357

Hesse-Biber, S. N. (2016). Introduction: Navigating a turbulent research landscape: working the boundaries, tensions, diversity, and contradictions of multimethod and mixed methods inquiry. In S. N. Hesse-Biber & B. Johnson (Eds.), *The Oxford Handbook of Multimethod and Mixed Methods Research Inquiry* (pp. XXXIII-LIII). Oxford University Press.

Hirschinger-Blank, N. B., Simons, L., & Kenyon, A. (2009). An Evaluation of a Service-Learning Model for Criminal Justice Undergraduate Students. *Journal of Experiential Education, 32* (1), 61-78. http://dx.doi.org/10.1177/105382590903200106

Howlett, K. M., Rao, A., Allred, J., & Beck, D. (2019). An English learner Service-learning project: Preparing education majors using technology and the SAMR model. *CALL-EJ, 20* (2), 128-149. http://callej.org/journal/20-2/Howlett-Mysore-Allred-Beck2019.pdf

Hutton, B., Catalá-López, F., & Moher, D. (2016). La extensión de la declaración PRISMA para revisiones sistemáticas que incorporan metaanálisis en red: PRISMA-NMA [The extension of the PRISMA statement for systematic reviews incorporating network meta-analyses: PRISMA-NMA]. *Medicina clínica, 147* (6), 262-266.

Hwang, H.-L., Wang, H.-H., Tuc, C.-T., Chena, S., & Changa, S.-H. (2014). Reciprocity of service learning among students and paired residents in long-term care facilities. *Nurse

rep

Education Today, 34 (5), 854-859. http://dx.doi.org/10.1016/j.nedt.2012.04.001

Johnson, R., Onwuegbuzie, A., & Turner, L. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research, 1* (2), 112-133. http://dx.doi.org/10.1177/1558689806298224

Knight-McKenna, M., Hollingsworth H. L., & Ammerman, N. (2019). Fostering partnerships with families: Academic service-learning in the Little Village. *Journal of Early Childhood Teacher Education*, *40* (2), 57-73. http://dx.doi.org/10.1080/10901027.2018.1514338

Lewellyn, A., & Kiser, P. (2014). Conceptualizing criticality as a guiding principle for high quality academic Service Learning. *International Journal of Teaching and Learning in Higher Education, 26* (1), 147-156.

Li, Y., Yao, M., Song, F., Fu, J., & Chen, X. (2019). Building a just world: The effects of Service-Learning on social justice beliefs of Chinese college students. *Educational Psychology, 39* (5), 591-616. http://dx.doi.org/10.1080/01443410.2018.1530733

Lowe, L. A., & Medina, V. L. (2010). Service-Learning collaborations: A Formula for Reciprocity. *Families in Society, 91* (2), 127-134. http://dx.doi.org/10.1606/1044-3894.3970

Ocal, A., & Altınok, A. (2016). Developing social sensitivity with Service-Learning. *Social Indicators Research, 129* (1), 61-75. http://dx.doi.org/10.1007/s11205-015-1091-6

Peralta, L., O'Connor, D., Cotton, W., & Bennie, A. (2015). Pre-service physical education teachers' indigenous knowledge, cultural competency and pedagogy: A Service Learning intervention. *Teaching Education, 27* (3), 248-266. http://dx.doi.org/10.1080/10476210.2015.1113248

Ponce, O., & Pagán, N. (2015). Mixed methods research in education: Capturing the complexity of the profession. *International Journal of Educational Excellence*, *1* (1), 111-135. http://dx.doi.org/10.18562/IJEE.2015.0005

Rodríguez-Izquierdo, R. M. (2020). Service Learning and academic commitment in higher education. *Revista de Psicodidáctica, 25* (1), 45-

51. http://dx.doi.org/10.1016/j.psicod.2019.09.001

Rubio, L., Puig, J. M., Martín, X., & Palos, J. (2015). Analizar, repensar y mejorar proyectos: una rúbrica para la autoevaluación de experiencias de Aprendizaje Servicio [Analyze, rethink and improve projects: Rubric for self-assessment and enhancement of Service Learning projects]. *Profesorado, Revista del Currículum y formación del profesorado, 19* (1), 111-126.

Schmid, C. H., White, I. R., & Stijnen, T. (2020). Introduction to systematic reviews and meta-analysis. In C. H. Schmid, I. R. White, & T. Stijnen (Eds.), *Handbook of Meta-Analysis* (pp. 1-18). Taylor and Francis.

Schneider-Cline, W. (2018). Guided vs. open-ended journals: A comparison of two reflective writing models for undergraduate Service-Learning experiences. *Journal of Service Learning in Higher Education, 8,* 1-21. https://journals.sfu.ca/jslhe/index.php/jslhe/article/view/170/63

Schvaneveldt, P., & Spencer, T. (2016). Impact of international humanitarian Service-Learning on emerging adult social competence. A mixed-methods evaluation. *Gateways: International Journal of Community Research and Engagemen*, *9* (1), 113-131.

Seider, S. C. (2012). The influence of parental support on the community Service Learning experiences of American college students. *Citizenship and Social Justice, 7* (3), 217-288. http://dx.doi.org/10.1177/1746197912456340

Seider, S. C., Gillmor, S., & Rabinowicz, S. (2012). Differential outcomes for American college students engaged in community Service-Learning involving youth and adults. *Journal of Experiential Education, 35* (3), 447-463. http://dx.doi.org/10.5193/JEE35.3.447

Seider, S. C., Rabinowicz, S. A., & Gillmor, S. (2011). The impact of philosophy and theology Service-Learning experiences upon the public service motivation of participating college students. *The Journal of Higher Education, 82* (5), 597-628. http://dx.doi.org/10.1353/jhe.2011.0031

Selmo, L. (2015). The Narrative Approach in Service-Learning Methodology: A Case Study. *International Journal of Research on Service-Learning and Community Engagement, 3* (1). https://journals.sfu.ca/iarslce/index.php/journal/article/view/98/68

Shostak, S., Corral, M., Ward, A. G., & Willet, A. (2019). Integrating community-based research into a senior capstone seminar: Lessons learned from a mixed-methods study. *Teaching Sociology*, *47* (3), 191-203. http://dx.doi.org/10.1177/0092055XI9841667

Simons, L., & Cleary, B. (2005). Student and community perceptions of the "Value added" for service learners. *Journal of Experiential Education, 28* (2), 164-188. http://dx.doi.org/10.1177/105382590502800208

Sterk Barrett, M. C. (2016). Dimensions of spirituality fostered through the PULSE program for Service Learning. *Journal of Catholic Education, 20* (1), 114-135. http://dx.doi.org/10.15365/joce.2001052016

Stevahn, L., Anderson, J., & Hasart, T. (2016). Community-based research (CBR) in the education doctorate: Lessons learned and promising practices. *International Journal of Doctoral Studies, 11,* 441-465. http://dx.doi.org/10.28945/3620

Tashakkori, A., & Teddlie, C. (2010). *Handbook of mixed methods in social and behavioral research*. Sage.

Wang, C., Zhang, X., & Yao, M. (2019). Enhancing Chinese college students' transfer of learning through Service-Learning. *Studies in Higher Education, 44* (8), 1316-1331. http://dx.doi.org/10.1080/03075079.2018.1435635

Waterman, A., & Billig, S. (2003). *Studying service-learning: innovations in education research methodology.* Routledge.

Warren, J. (2012). Does Service-Learning increase student learning?: A Meta-Analysis. *Michigan Journal of Community Service Learning, 18* (2), 56-61.

Wartenweiler, T. (2018). Serious play in education for social justice – An exploratory study. *Journal of New Approaches in Educational Research, 7* (1), 61-69. http://dx.doi.org/10.7821/naer.2018.1.260

White, A. (2001). *A meta-analysis of Service Learning research in middle and high schools* [Unpublished doctoral dissertation]. 67. University of Nebraska.

Yoiro, P., & Ye, F. (2012). A Meta-Analysis on the effects of Service-Learning on the social, personal, and cognitive outcomes of learning. *Academy of Management Learning & Education, 11* (1), 9-27. http://dx.doi.org/10.5465/amle.2010.0072

Zimmerman, A. S. (Ed.) (2020). *Preparing Students for Community-Engaged Scholarship in Higher Education.* IGI Global.

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Brief history of Values Clarification: Origin, development, downfall, and reflections*

Apuntes para una historia de la Clarificación de valores: origen, desarrollo, declive y reflexiones

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Abstract:

Education on moral values is an area that has caused controversy in the 20th and 21st centuries, in particular due to the social rejection of the possible indoctrination of students. Louis Raths' Values Clarification methodology was one of the most representative proposals that attempted to outline a moral education free of indoctrination. Without further examining philosophical arguments that have already been dealt with in numerous publications, this article holistically studies the history of this approach in order to learn from the efforts, challenges, victories, and failures of those who have preceded us in the task of educating citizens with moral convictions. The article begins by presenting the main points of psychologist Carl Rogers' theory that most influenced the origin of this methodology. It then introduces the social context in which the Values Clarification programme arises, a detailed description of its key points, the warm reception it received and, finally, the criticism and assessments that led to its dizzying downfall. To conclude, three brief reflections on moral education are presented, which, although not new, are reinforced by the study undertaken in this article.

Keywords: Values Clarification, moral values, moral education, character education, Carl Rogers, Louis Raths, Howard Kirschenbaum, United States.

Resumen:

La educación en valores morales es un ámbito que ha generado polémica en los siglos XX y XXI, especialmente por un rechazo social hacia el posible adoctrinamiento de los estudiantes. La metodología de Clarificación de valores de Louis Raths fue una de las propuestas más representativas que intentaron plantear una educación moral libre de adoctrinamiento. Sin profundizar en argumentos filosóficos que ya han sido tratados en numerosas publicaciones, el artículo estudia la historia de este planteamiento, para aprender de los esfuerzos, retos, victorias y fracasos de aquellos que nos han antecedido en la tarea de educar ciudadanos con convicciones morales. El artículo comienza exponiendo los puntos principales del pensamiento del psicólogo Carl Rogers que más influyeron en el origen de esta metodología. Después, se introduce el contexto social en el que surge el programa de la Clarificación de valores, una descripción detallada de sus notas esenciales, la buena acogida que recibió y, por último, las críticas y evaluaciones que condujeron a su vertiginoso declive. A modo de conclusión, se presentan tres breves reflexiones sobre la educación moral que, aunque no son novedosas, se ven reforzadas por el estudio realizado en este artículo.

Descriptores: Clarificación de valores, valores morales, educación moral, educación del carácter, Carl Rogers, Louis Raths, Howard Kirschenbaum, Estados Unidos.

1. Introduction

Over recent decades, many experts in education have stated that the great challenges and difficulties of society must be faced by influencing the moral education of citizens (Bernal et al., 2015; Damon, 2002; Lickona, 1991; Nucci et al., 2014). Nevertheless, the moral sense of education has been excluded in many educational systems for various reasons, including especially: a) a misunderstood relationship with religion, which excludes it from secular public education; b) the conviction that it makes no sense in an age where moral relativism reigns; c) or conceiving it as mere training that incapacitates ethical reasoning; among other aspects (Dabdoub et al., 2020).

Spain is no exception. Fuentes (2018) carried out a suggestive analysis of Spanish education law, starting with the LOECE (Organic law regulating the Statute of Schools) in 1980 and ending with the LOMCE (Organic law on the Improvement of Educational Quality) in 2013. His study revealed that morality is treated as something very residual in Spanish law, with vague and scarce names that have tended to disappear over time, leaving in its place the notion of value. Moreover, he considers that the current law is, in certain ways, in line with the Anglo-Saxon proposals from the 1970s and 1980s known as *values-free*, whereby the aim was to provide neutral moral education. Fuentes suggests that the principles of Spanish education law seem to be inspired by this movement,

both due to the primacy given to the concept of value and due to the importance given to moral autonomy.

The main values-free proposal of that time was the Values Clarification movement, which enjoyed years of success and dissemination that were only overcome by the outburst that made anything referring to this methodology disappear (Dabdoub, 2019). What was so attractive at the very inception of this approach and so repulsive in its downfall? What results were achieved? What lessons can be learned from this experience when proposing the moral aspect of education? Few analyses have been carried out on Values Clarification in this sense, with the exception of some studies of a markedly philosophical nature (Ellrod, 1992; Lipe, 1995; Medina, 2000; Sanderse, 2012). In this article, I intend to analyse the educational *experience* of Values Clarification, without downplaying the importance of philosophical studies, with the aim of encouraging deep and practical reflections that can inspire educational approaches and current legislation. Rather than detailing the moral theory of those who promoted Values Clarification, it is about better understanding the problem they faced, how they took on the challenge, and what results they achieved, so that we can build something better based on their experience.

The article begins by developing the points of Carl Rogers' thought that most influenced the origin of Values Clarification (Ellrod, 1992; Kirschenbaum, 1976; Pascual, 2014). It then introduces the social context in which the Values Clarification programme arises, a detailed description of its key points, the warm reception it received and, finally, the criticism and assessments that led to its dizzying downfall. By way of conclusion, three practical reflections for moral education are presented.

2. Rogers' inner rupture

Carl Rogers is considered one of the founders of humanistic psychology. This current is characterised by focusing on the personality as a development with freedom to make decisions, in search of meaning. Rogers (1964) believed that traditional values do not fit in well with the new world culture, which is increasingly leaning towards empirical science and moral relativism, and he wished to find a new approach to values that fitted the needs of his time.

This author focuses his discourse on *operative values*, those that have no cognitive or conceptual basis, but are manifested in behaviour by means of the "preference of the organism" (1973, p. 77). In parallel to Rousseau (2011), he states that the child has an innate prudence, a *wisdom of the body*. He states that children know what they like and, to a large extent, what is good for them, as if the organism itself were communicating what is best at any given time. However, many adults lose this innate wisdom as they are subjected to the demands, pressures and expectations of society. As individuals grow older, they begin to add the values that society communicates, or

in some cases imposes, to their operative values. Rogers calls these values *introjected value patterns* (1964). These are the values that come from sources such as schools, churches, government, peers, or artists. These sources say something about what our values should be. Making money, being smart, loving your neighbour, or drinking Coca-Cola are presented as desirable, whereas disobedience, sexual desires, or communism are presented as bad or undesirable.

Most of these introjected values come from people or institutions close to the individual. However, the source or evaluation of these values does not lie in the individual him or herself, but in something external. More often than not, the criterion for taking on these values lies in being esteemed, loved or accepted by the person or the collective that holds or proposes the value. Rogers (1973) states that there are often discrepancies between what our own identity and integrity tell us we should value and what others present to us as values. That is to say, we renounce what we consider moral in order to gain the affection or acceptance of others.

Thus, our ability to value falls into disuse, as we make use of the values of others. Over time, it becomes more and more difficult to listen to the inner voice that manifests the operative values, one loses confidence in one's own criteria, and one does not find assurance in one's personal experience. There may even be a scenario where our preferences, our operative values, are seen as threats if they contradict other values. These people, Rogers points out, end up rigidly embracing the values of society and lose the natural flexibility provided by operative values in each circumstance.

When taking on valuings from different sources, it is not uncommon to find people with contradictory or incompatible values. This leads to situations of instability where people are unable to discover what they really value, what is truly important to them. This causes the *inner rupture* that Rogers finds in the modern human being, who distrusts their own experience and intuition and loses contact with their inner world.

The aim of Rogers' psychotherapy sessions is for people to develop a valuing process that is based on their inner world, considering their experiences, feelings, thoughts and intuitions. It seeks to help people get to know themselves and, based on that, determine what they want and value.

It is not our aim to evaluate Rogers' thought, which, at the time, enjoyed great success, rather we highlight it due to the influence it had on the creators of the Values Clarification movement.

3. Social context

In the late 1960s and early 1970s, many educators in the United States pointed out that students' academic inadequacies and behavioural problems were related to students' moral education. The moral relativism of the time and the

lifestyle based on luxury and well-being led to an attitude of cynicism and disillusionment among the youth. An inability to acquire feelings of authenticity and commitment to values that could give meaning to the new options offered by the modern world was detected in young people (Salls, 2007). One of the main concerns of moral education reformers at the time was students' inability to have and choose values (McClellan, 1999). As Rogers states, Americans in those years were deeply insecure given the *freedom of choice* concerning their life orientation, seeing the discernment of values, goals, or objectives as a problem.

At this time, the need arose to rethink moral education, but respecting the autonomy of each individual demanded by the social environment. Since the mid-20th century, there has been a widespread fear of *imposing* moral values or principles in schools. So as not to get into trouble with parents and directors of schools, teachers prefer to avoid this topic in class. Lickona (1991) presents this comment from a retired teacher interviewed in the 1950s giving us a glimpse of this widespread climate in American schools:

> I think the average classroom teacher wanted to go on teaching values. I remember getting into arguments, though, with some of my younger colleagues who'd say, 'My values aren't the same as your values'. I'd say, 'Well, what about values like honesty, kindness and responsibility; can't we teach those?' But I didn't get far; there was this new feeling that if we taught any kind of morality, we'd be 'imposing our values' on the children. (p. 8)

These circumstances presented a truly paradoxical challenge: that of implementing moral education that was *morally neutral*. In this sense, a proposal came to light that was considered to meet these requirements and which was very well received during the 1970s, namely Values Clarification.

4. Values Clarification

The Values Clarification programme was originally designed by the psychologist Louis Raths in the United States in the late 1960s and was a moral education model that was very popular from the late 1960s to the late 1970s (Sandin, 1992). Its first and most important reference was the book *Values and Teaching*, published by Louis Raths, Merrill Harmin and Sidney Simon in 1966. It was the book that "launched the educational movement regarding Values Clarification" (Pascual, 2014, p. 32).

This proposal arose from the conviction that the learning and behavioural problems presented by students in schools responded to an internal difficulty to acquire values given the increasingly complex conditions of modern life. The main difficulty came from the numerous, diverse, and — on many occasions — incompatible moral values that were found in the family, at school, in churches, or in the media (Raths et al., 1978).

Raths, Harmin and Simon (1978) identify the following characteristics or behaviours as being characteristic of people who have difficulty determining their

own values: apathetic, disinterested, un-enthusiastic people, who remain passive to their surroundings; they are interested in many things but for a short time, they do not persevere; they find it difficult to make decisions and do not know what they want; many are inconsistent in their interests or choices; they drift, letting themselves be carried along, without any plan or goal; they conform, seek comfort and go along with the dominant opinion; some are dissidents by default, finding their *raison d'être* in complaining and opposing others (p. 7).

A great deal of traditional moral teaching consisted of children adopting the values they were told to adopt. Faced with such a variety of opinions, it is only natural that children experience a certain bewilderment and ambiguity that makes it difficult for them to commit to any value. Another point of criticism concerning this traditional approach from the perspective of psychology is the inner rupture or crisis that can arise when the values that are to be acquired are merely presented and no effort is made to internalise them or to develop processes that allow us to individually verify if something is to be valued or not. Medina (2000) eloquently explains what Values Clarification wanted to achieve:

> Having values, yes, but those that stem from a serious and consistent personal reflection, without aiming for the subjective conclusions reached to be necessarily accepted by others. The aim: to help students overcome the crisis of meaning that traditional values have in their lives. (p. 5)

The new proposal by Raths consists of not imposing any values on children, but rather helping them find and choose the values they want to acquire, without being coerced. The aim is to seek a process that encourages personal identification with the values, so that the students make them their own and, therefore, increase their commitment and feeling of authenticity. His premise is clear: it is not effective to teach a specific set of values; instead, one must help develop the ability to determine one's own values. The goal is to help everyone *discover* their own personal values. To achieve this, the process must be autonomous, with collaboration from the teacher as a mere facilitator (Escámez, 1996). Gordillo (1992) describes the purpose of Values Clarification as follows:

> It is a series of strategies which are intended to help students clarify their feelings, interests and needs, so that, once transformed into values, they become self-confident, responsible, optimistic and able to establish appropriate relationships with society. (p. 92)

It is important to clarify Raths' concept of value. Values are not mere desires, interests, feelings or attitudes, rather something deeper. They are convictions, consisting of reason and affect, that show how a person decides to spend his or her life: "It is characteristic for the Values Clarification technique to include thoughtful consideration, prizing/cherishing and action. The objective is to reach the behaviour by first experiencing the feeling and clarity of ideas" (Pascual, 2014, p. 32). Part of Raths' method

consists of each individual being able to verify which beliefs, attitudes, activities or feelings can be considered values. To this end, it sets out seven verification criteria (Raths et al., 1978, p. 47):

1. *Having been freely chosen.* There is no room in this theory for values that are imposed by outside pressures.

2. *Having been chosen from among alternatives.* A real choice must exist, not a spurious one.

3. *Having been chosen after due reflection.* This excludes impulse or highly emotional choices from the category of values.

4. *Having been prized and cherished.* We exclude form the level of values those things which we have or do which we are not proud of and would rather not have or do — as when one chooses the least objectionable of several undesirable alternatives.

5. *Having been affirmed to others.* To be ashamed to affirm something is to indicate that one does not value it fully.

6. *Having been incorporated into actual behaviour.* A person who chooses democracy and never does anything to put that choice into practice may be said to have an attitude or belief about democracy but not a value.

7. *Having been repeated in one's life.* A one-shot effort at pottery making, for example, would not qualify as a value.

It is an inductive method which, through specific reflections, helps every student to get a better idea of themselves by offering a process to discover what they truly value. Students should apply the seven criteria to everything that has the potential to be of value to them. If any of them are not fulfilled, it should not be considered as a value. Different contributions to Raths' objective can be seen in each of the seven criteria: 1) encourage children to make choices without being coerced; 2) look for and examine different alternatives when they have to make a choice; 3) learn to reflect on the alternatives, taking responsibility for the consequences of each and every one; 4) encourage children to consider what it is they are looking for, desire or value; 5) give them the opportunity to make public affirmations of their choices, encouraging consistency; 6) turn the choice into some specific action; and, finally; 7) integrate the choice into their behavioural habits and patterns. According to Raths, Harmin and Simon (1978), the Values Clarification methodology has four key elements (pp. 4-5):

1. *Focus on life*: observe aspects of life that we sometimes do not consider in order to find what one truly values. This may involve personal issues, but social issues should also be included.

2. *Acceptance of the way things are*: it is important to accept the values that others may have, without judging them for being different to one's own. It is also not necessarily a matter of approving them. Values Clarification requires us to accept people as a whole, just

as they are. People also need to accept themselves. This process is about helping them to accept themselves as they are, being honest with themselves and with others, no matter how confusing or negative their thoughts and feelings may be.

3. *Opportunity for further thoughtful consideration*: in addition to acceptance, it is important to thoughtfully consider the matter further. This means one can make more informed choices and be more aware of what one wants and desires.

4. *Development of personal powers*: the overall message of this methodology is that thoughtful consideration of values allows for better integration of choices, desires and behaviour. In this way, each person is better equipped to steer their life in the direction they really want.

It is evident that, when implementing Values Clarification, a variety of values emerge among students and some of them may appear to be incompatible or contrary to each other. In this situation, students are likely to question whether it makes a difference which values they choose or wonder which value is better and why. On this point, Raths does not go into the issue of determining which value or values would be best. Quite the contrary, his aim is to make everyone thoughtfully consider what they think and feel using his seven criteria. Moreover, he insists that all people (and not all values) must be accepted, regardless of how *wrong* their value judgements may be.

5. Kirschenbaum's reform

An important figure in the development of the Values Clarification methodology was Howard Kirschenbaum, who enthusiastically received Raths' proposal. This author made an interesting point of criticism, stating that Raths' method could be conceived more as criteria than as processes. If they are accepted as mere *criteria*, they only help to verify whether an inner perception meets all the conditions to be a value. On the other hand, if they are considered as *processes*, they help to discover which inner perceptions can be considered values. Criteria help to *verify*, processes to *discover*.

Kirschenbaum and Simon (1973) carried out what could be considered the first reform of the Values Clarification methodology. We actually find the same seven steps as in Raths' method. Nevertheless, the order changes (pp. 23-26):

1. Having been prized and cherished (previously no. 4).
2. Having been affirmed to others (previously no. 5).
3. Having been chosen from among alternatives (previously no. 2).
4. Having been chosen after due reflection (previously no. 3).
5. Having been freely chosen (previously no. 1).
6. Having been incorporated into actual behaviour (previously no. 6).
7. Having been repeated in one's life (previously no. 7).

At first glance, there appears to have been little change in Raths' methodology;

however, there are two important considerations. The first is that the new order tends to make us consider the proposal more as a series of processes than as a verification. In fact, Raths called them *The Seven Criteria*, and now Kirschenbaum and Simon call them *The Seven Processes*. In Raths version, one first considers how one has chosen, and then whether what was chosen has been valued in terms of affect. In this reform, one first questions what it is that one wants or desires, and then the choice is made. With the criteria one thoughtfully considers a previously made choice, whereas with the processes one thoughtfully considers what one wants to choose.

The second consideration is the greatest emphasis placed on the affective realm in this new version. Raths also considered longings, desires, and preferences. Nevertheless, the analysis of feelings in relation to values is given greater consideration here, not only because they are at the beginning of the process, but also because their need for effective action is recognised (Kirschenbaum, 1973). Kirschenbaum and Simon (1973) emphasise the need to include the affective realm in moral education:

> We need people to find ways to help young people discover what it is important to them, to learn to set priorities, and to know what they are for or against. So much of our education forces us to deny our feelings and to distrust our inner experience. Valuing is not only a cognitive process. Education has to include the affective realm too. The future will hold many surprises. Unless people are capable of tuning into their own feelings, they will be ill-equipped to make the decisions that the future calls for. (p. 23)

6. Reception, criticism and responses

This methodology was received with great enthusiasm in the 1960s and 1970s, especially in the area of Social Sciences (McClellan, 1999). It was an attractive proposal for teachers for three reasons: 1) using it does not require moral preparation; (2) a wealth of teaching and support materials was readily available; and (3) there was partial support in the form of State grants (Hunter, 2000). It quickly became the trending moral education proposal of the 1970s, despite the fact that it did not have sufficient philosophical and psychological reviews to verify its effectiveness. According to Sanderse (2012), a great deal of its success is due to the fact that this methodology considers children as people capable of reasoning what is and what is not worthwhile, instead of treating them as immature and ignorant, thus establishing an authoritarian relationship with them (p. 29).

In this period, more than forty books and hundreds of articles were written on Values Clarification. Kirschenbaum (2000) says that, from 1968, he gave hundreds of conferences and workshops on the subject, not only in the United States, but on all five continents. He co-authored four books and numerous articles and directed the *Values Clarification Trainers Network* for several years. Nearly half a million copies of Raths' book were sold, with Simon's *Values Clarification: A Handbook of Practical Strategies* going on to outsell it, becoming the bestseller in moral education.

A frequent point of criticism on Values Clarification was that values should not be spoken about as being good or bad. The teacher, rather than making moral judgements about values, should encourage the freedom and authenticity of each student to discover and adopt their own values. In a critical study of this approach, Medina asserts that the teacher "should never convince, persuade, or place a particular option in a pre-eminent position. Their task is to encourage the unconditional free decision of the student in forming their own personal moral code" (2000, p. 6). Of course, always encouraging respect for the values discovered and adopted by other peers, communities or cultures. In a sense, all values are equally valid, provided that there are no values that interfere with the individual right to value what one discovers, adopts, wants or chooses. Interestingly, the pre-eminence accorded to the value of respect was not seen as an imposition.

Harmin and Simon (1967) respond to this criticism by arguing that it is not necessary for teachers to be silent about their own values. What they do consider necessary is going beyond the theoretical example, the anecdote, merely manifesting the consideration of what is right and what is wrong, since this is not enough to learn how to make choices when two or more values conflict (p. 525). The Values Clarification method suggests that the best way to learn to choose values is by *choosing them*, deliberating and facing the consequences. These authors are convinced that the key to finding authentic convictions and committing to them lies in developing the valuing process through practice.

Another point of criticism claimed that Values Clarification led to moral relativism. Critics argue that this model does not explicitly promote the search for moral truth, or any kind of consensus. They, therefore, consider that moral truth is *implicitly* denied. In practice, this moral education is void of content and does not propose a one-size-fits-all system of norms for life, or of *values* that make people grow and be happy. Escámez states that it cannot even be considered moral education, since it shies away from talking about what is good and bad for human beings: "it is not a strictly moral approach; the idea of moral values is relativistic and does not seem to distinguish between moral desires and moral preferences" (1996, p. 49). It seems that any opinion or personal preference is valid, as long as they tolerate and do not interfere with those of others.

In line with relativism, the failure to differentiate between moral decisions and personal issues of taste or preference is also criticised. Both Rath and Kirschenbaum's methods do not explicitly state a categorical difference between decisions such as stealing or lying, and wearing blue or going to the cinema on Sunday (Ryan, 1989). While each student is encouraged to reflect and discover that these decisions belong to different orders, one must consider the possibility that just the opposite may occur.

Kirschenbaum argues that this criticism is not entirely true, since both his and Raths' proposals included specific values from the outset. He underlines

that both he and Raths take as a basis a reaction to the consequences of the social indoctrination that took place in various countries and which led to the horrors of the Second World War, and so in order to avoid the danger of violently imposing absolute values, they preferred to seek the objective of developing a valuing process that would improve the quality of individual and social life (Kirschenbaum et al., 1975). However, along with this, Kirschenbaum (2000) states that the Values Clarification model implies education on highly important civic and moral values, such as respect, justice, empathy, honesty and integrity. He argues that the processes and strategies of Values Clarification implicitly include these civic and moral values (p. 12). For example, teaching students to listen carefully to others teaches the value of respect. By inviting consideration of others' points of view, fairness and empathy are encouraged. By encouraging students to bridge the gap between what they say and what they do, the values of honesty and integrity are taught. Proposing moral dilemmas conveys that it is important to reflect on morality. In short, Values Clarification states that it includes a moral context loaded with implicit values. Although not explicitly taught, these values were part of the hidden curriculum.

In addition, Lockwood (1978) states that Values Clarification does not give a clear definition of its objective: he finds it difficult to identify what exactly is sought with this methodology. This leads to a serious difficulty when it comes to evaluating it. Sanderse shares this opinion, considering that, in the absence of clear objectives and stages or levels of development, it is difficult to answer the questions that enable evaluation of moral education: What does a child goes through when its values are clarified? How can we distinguish between people who have clarified their values to different degrees? Which strategies fit which level of development?" (2012, p. 36). It must be conceded that, in a sense, it does specify its objective, which is to achieve greater identification and commitment to values, which is a difficult issue to evaluate. It is also true that, by not specifying any value, and accepting any value as valid, the objective seems to seek identification and commitment to *anything*, which is certainly ambiguous. Kohlberg and Simon support this view by arguing that, in the absence of clear objectives, it is not known whether Values Clarification works or not: "No one has ever assessed what good their work has done because they have no criteria of what developmental improvement would be." (1973, 64).

Ellrod presents a profound point of criticism from a philosophical point of view. Most of the rationale for Values Clarification is based on the fact that students are free to choose their values, without being influenced by the teacher or other external elements. Nevertheless, it is clear that children come to school with certain pre-existing values that have not been *freely* chosen most of the time. Therefore, certain steps of the model, such as those of prizing and cherishing, would be impossible if there were no pre-existing values, since it is precisely on this that any

current valuings depend. The criticism is that an attempt is made to reach a value-neutral judgement through a process that requires pre-existing valuings, the neutrality of which cannot be guaranteed. Therefore, the *neutrality* of the new values is compromised. According to Ellrod, this is the main point of criticism on Values Clarification from a philosophical point of view: "It is not clear what is supposed to be left free to operate 'naturally', once the field of one's valuings has been cleared and inhibitions removed, unless a pure, groundless existentialist choice is to be invoked" (1992, p. 17).

Another point of criticism is that Values Clarification inherits and contributes to the individualism of the time, breaking contact with others and with objectivity. In classical moral education, there was an emphasis on *us*, on the responsibility as a community to identify the good, the best, and to achieve it together. On the contrary Values Clarification seems to encourage each person to seek and achieve what they consider good, regardless of the others. Salls (2007) suggests that this methodology is partly responsible, along with other factors, for the individualism currently found in many adults and adolescents who view morality as something private and relative (p. 17).

7. The downfall

In the late 1970s, after analysing more than ten studies on the outcome of Values Clarification, Lockwood (1978) concluded that the impact of this methodology on students' self-esteem, self-concept, or personal adaptation could not be proven (p. 344). He also finds no evidence of an impact on the values that are developed. However, as we have seen, the methodology became popular and was implemented in many American schools, influencing the mentality of these generations and also social change. Kilpatrick (1992) sets out this view in a book whose title conveys a pressing concern: *Why Johnny can't tell right from wrong and what we can do about it.*

Given these points of criticism and assessments, it seems that Values Clarification did not achieve its goal. On the contrary, some claim that it worsened the social environment and contributed to the moral turmoil of the time. This moral education model lost its popularity almost as quickly as it gained it. By the late 1970s and early 1980s, Values Clarification had been discredited. Book sales declined, as did requests for courses and conferences. Regarding these years, Kirschenbaum (2000) states that a school principal would rather be accused of having asbestos in the classroom ceilings than it be thought that his school was teaching Values Clarification. The new trends were oriented towards traditional moral education and the renewed character education. Aware of the negative effects of his efforts, Harmin states that, looking back, "it would have been better had we presented a more balanced picture, had we emphasized the importance of helping students both to clarify their own personal values and to adopt society's moral values" (1988, p. 25).

After three decades of experience, Kirschenbaum (2000) decided to leave Values Clarification and join the character education movement. He admitted that for a long time he was so intent on avoiding *moralising authoritarianism* that he refused to see the negative effects of his proposal (p. 11). He was aware of the serious problems facing society: widespread confusion, moral decline, social disintegration, etc. At this point, he was convinced that the solution lay in the character education approach, "to teach, model, and facilitate the traits of character, moral virtues, civic values, and responsible self-direction on which our common future depends" (p. 18).

This author claims that he and his colleagues had very noble intentions. They wanted to solve the problem regarding the apathy and lack of commitment that was present in society in order to motivate moral behaviour. After much time and reflection, Kirschenbaum (2000) states that the big problem that caused Values Clarification to fail was the mistaken assumption that students had a rational moral *base* and were aware of traditional values with which they merely needed to identify:

> And so, belatedly, I recognised the fatal flaw in values clarification: It took traditional values for granted. It assumed that people had within them enough decent goodness, intuitive understanding of right and wrong, fairness and justice, and strength of character that, given a chance to identify their own deepest feelings and to thoughtfully examine the alternatives, they would ultimately make good and responsible choices. (p. 12)

8. Final comments

By way of conclusion, we will now set out three brief reflections on moral education. Although they are not new, they are reinforced by the study carried out in this article on Values Clarification, and may be of use to those practising or overseeing moral education today.

8.1. It is better to propose a moral view in schools than no moral view at all

The social climate of the time demanded morally neutral education that guaranteed moral freedom, without imposing convictions or indoctrinating students. In traditional approaches to moral education, the teacher proposed, based on their subjectivity or the common social *ethos*, the moral view that they considered to be the most correct. This, of course, influences students' moral development. However, it is also possible for the student to form a different opinion to that of the teacher, even a contrary one. On this point, I believe that not giving any opinion is less *liberating* than justifying a moral proposal, since the student is left adrift, without any role model. Silencing all opinions does not help to overcome their ignorance and, by not having any role model, the student becomes more vulnerable to potential manipulation by people or institutions for questionable purposes. The student is left defenceless in the face of *influences* that are often self-serving: corrupt politics, consumerism, peer pressure, and so on. The assessment that Values Clarification obtained in the end supports this argument.

8.2. Moral education cannot be avoided

There are those who think that schools can be *values-free*, that is to say,

that they can educate without affecting students' moral dimension. On the contrary, leaders of the character education movement such as Berkowitz (2012) or Lickona (1991) claim that *one cannot not educate morally* (intentional double negative). The mere presence of an adult has a moral influence on children, and much more so if they have a close relationship, such as that of student-teacher. There is no *off switch*: we always influence. Some do so strategically and intentionally, considering this dimension in their curriculum design; others prefer not to openly state their objectives. Nevertheless, if one cannot not have an influence on the character of students, it is a good idea to plan and direct the course. Although Values Clarification sought genuine neutrality, its authors agree that it was impossible to prevent its methodology and its dealings with students from implying — and demanding — a list of specific moral values.

8.3. A social agreement on moral values can be reached

The moral neutrality of education defends the supposed need for an education without values in order to guarantee freedom. The dominant educational mentality of that time was not capable of conceiving any sort of explicit teaching of moral values with no indoctrination or manipulation. However, this paper shows how Values Clarification was replete with implicit moral values, values that society agreed with and considered fundamental. This is not at all unusual: numerous studies show that there is common ethical ground, even in societies like

ours, with so many contested values. We know there is conflict on issues such as abortion, homosexuality, euthanasia and capital punishment. Nevertheless, there are many shared values that make public moral education possible in a pluralistic society. Indeed, pluralism itself would not be possible without agreement on values such as justice, honesty, civic responsibility, democratic process and respect for truth. There is no need to abandon *all* moral education because of a lack of common agreement on certain contentious issues. Moreover, the possible solution to these conflictive issues lies, for the most part, in citizens integrating fundamental moral values into their lives, those that are essential for dialogue and the pursuit of the common good.

References

Berkowitz, M. (2012). *You can't Teach through a Rat and other Epiphanies for Educators*. Character Development Group.

Bernal, A., González-Torres, M. C., & Naval, C. (2015). La Educación del carácter: Perspectivas internacionales [Character education. International perspectives]. *Participación Educativa*, *4* (6), 35-45.

Dabdoub, J. P. (2019). *Educación moral y educación del carácter: estudio de las principales propuestas de los siglos xx y xxi en Estados Unidos a partir del pensamiento de Aristóteles y Kant [Moral education and character education: a study of the main proposals of the 20th and 21st centuries in the United States based on the thought of Aristotle and Kant].* [Unpublished doctoral thesis]. Universidad de Navarra.

Dabdoub, J. P., Naval, C., & Bernal, A. (2020). El declive de la educación del carácter en Estados Unidos durante el siglo xx [The decline of character education in the United States in the 20th century]. *Pedagogia et vita*, *78* (2), 92-109.

Damon, W. (Ed.) (2002). *Bringing in a new era in character education*. Hoover Institution Press.

Ellrod, F. (1992). Contemporary philosophies of moral education. In G. McLean & F. Ellrod (Eds.), *Philosophical foundations for moral education and character development: act and agent* (pp. 9-42). Council for Research in Values and Philosophy.

Escámez, J. (1996). Teorías contemporáneas sobre educación moral [Contemporary theories on moral education. A values world]. In A. Cortina (Ed.), *Un mundo de valores* (pp. 39-50). Generalitat Valenciana.

Fuentes, J. L. (2018). Educación del carácter en España: causas y evidencias de un débil desarrollo [Character education in Spain: Reasons and evidences of a weak development]. *Estudios sobre educación*, *35*, 353-371. https://doi.org/10.15581/004.35.353-371

Gordillo, M. (1992). *Desarrollo moral y educación [Moral development and education]*. EUNSA.

Harmin, M. (1988). Value clarity, high morality: Let's go for both. *Educational Leadership*, *45* (8), 24-30.

Harmin, M., & Simon, S. (1967). Values and teaching: A humane process. *Educational Leadership*, *24* (6), 517-525.

Hunter, J. D. (2000). *The death of character: Moral education in an age without good or evil*. Basic Books.

Kilpatrick, W. (1992). *Why Johnny cant tell right from wrong and what we can do about it*. Touchstone.

Kirschenbaum, H. (1973). Beyond Values Clarification. In H. Kirschenbaum & S. B. Simon (Eds.), *Readings in Value Clarification* (pp. 92-110). Winston Press.

Kirschenbaum, H. (1976). Clarifying Values Clarification: Some theoretical issues and a review of research. *Group & Organization Studies*, *1* (1), 99-116.

Kirschenbaum, H. (2000). From Values Clarification to character education: A personal journey. *Journal of Humanistic Counseling Education and Development*, *39* (1), 4-20.

Kirschenbaum, H., Harmin, M., Howe, L., & Simon, S. (1975). *In defense of Values Clarification: A position paper* (pp. 1-8). National Humanistic Education Center.

Kirschenbaum, H., & Simon, S. (1973). Values and the futures movement in education. In H. Kirschenbaum & S. Simon (Eds.), *Readings in Value Clarification* (pp. 17-30). Winston Press.

Kohlberg, L., & Simon, S. (1973). An exchange of opinion between Kohlberg and Simon. In H. Kirschenbaum & S. Simon (Eds.), *Readings in Values Clarification* (pp. 62-64). Winston Press.

Lickona, T. (1991). *Educating for character: How our schools can teach respect and responsibility*. Bantam Books.

Lipe, D. (1995). *A critical analysis of values clarification*. Apologetic Press.

Lockwood, A. (1978). The effects of Values Clarification and moral development curricula on school-age subjects: A critical review of recent research. *Review of Educational Research*, *48* (3), 325.

McClellan, B. E. (1999). *Moral education in America: Schools and the shaping of character from colonial times to the present*. Teachers College, Columbia University.

Medina, J. R. (2000). Educación moral: un estudio crítico de la «Clarificación de Valores» [Moral education: a critical study of "Values Clarification"]. *A Parte Rei: Revista de filosofía*, *9* (7), 1-33.

Nucci, L. P, Krettenauer, T., & Narváez, D. (2014). *Handbook of moral and character education*. Routledge.

Pascual, A. (2014). *Clarificación de valores y desarrollo humano [Values clarification and human development]*. Narcea Ediciones.

Raths, L., Harmin, M., & Simon, S. (1978). *Values and teaching: Working with values in the classroom*. Charles E. Merrill Publishing Company.

Rogers, C. (1964). Toward a modern approach to values: The Valuing process in the mature person. *Journal of Abnormal & Social Psychology*, *68* (2), 160-167.

Rogers, C. (1973). Toward a modern approach to values: The valuing process in the mature person. In H. Kirschenbaum & S. Simon (Eds.), *Readings in Values Clarification* (pp. 75-91). Winston Press.

Rousseau, J. J. (2011). Emilio o la educación [Emile, or On education]. In S. Sevilla (Ed.), *Obras Completas*. Gredos.

Ryan, W. (1989). Incoherence and contradiction in the Values Clarification movement. *McGill Journal of Education*, *24* (2), 173-186.

Salls, H. S. (2007). *Character education: Transforming values into virtue*. University Press of America.

Sanderse, W. (2012). *Character education: A Neo-Aristotelian approach to the philosophy, psychology and education of virtue*. Eburon.

Sandin, R. (1992). *The rehabilitation of virtue: Foundations of moral education*. Praeger Publishers.

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Pedagogy of the Snail:
A rebellion in favour of slowness

La Pedagogía del Caracol.
Una rebelión a favor de la lentitud

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Abstract:

Different studies show that western society is living at a frenetic pace. Paradoxically, despite having many tools for managing and saving time, we find that we increasingly have less of it. To challenge this dizzying environment, movements have arisen that seek to rebel against this accelerated pace, such as the so-called 'slow movement'. The educational field is not oblivious to this problem and pedagogical initiatives and approaches have arisen that try to combat said pace at school level, including the so-called 'slow education'. Based on a study carried out in Italy on *Pedagogia della Lumaca*, devised by the teacher, Gianfranco Zavalloni, an attempt is made to develop his pedagogy by identifying those who influenced his educational proposal, known in Spain as *La Pedagogía del Caracol* (Pedagogy of the Snail). Furthermore, this study also aims to reveal how the proposal could be established, identify the principles on which it would be based and to outline some of its educational purposes. The study has been carried out under a qualitative methodology, through techniques such as a bibliographic and documentary review of Zavalloni's works, and several interviews with his closest personal and professional acquaintances. According to the data obtained, it can be said that, more than an approach, a pedagogical model or a methodology, it is a pedagogical trend from which an educational method, from a child-centred perspective, can be established. As with slow education, one of the aims of Pedagogy of the Snail is to offer a framework to those pedagogues who value time in education and who seek to provide their children with the values required to be masters of their own time.

Keywords: educative time, pedagogical methods, educational theories, alternative pedagogy, teaching models.

Resumen:

Diversos estudios ponen de manifiesto que la sociedad occidental está sometida a una anormal velocidad. Paradójicamente, disponemos de numerosas herramientas para gestionar y economizar nuestro tiempo y, sin embargo, cada vez carecemos más de él. Ante este clima de vertiginosidad surgen movimientos que pretenden rebelarse contra la aceleración, como el denominado «movimiento por la lentitud». El ámbito educativo no es ajeno a esta problemática y también desde él surgen iniciativas y propuestas pedagógicas que tratan de combatir este acelerado ritmo desde la escuela, como la denominada «Educación Lenta». A partir del estudio realizado en Italia sobre la *Pedagogia della Lumaca*, se pretende desarrollar el pensamiento pedagógico de su ideólogo, el maestro Gianfranco Zavalloni, a través de la identificación de los que fueron los referentes para la configuración de su propuesta educativa, conocida en España como la «Pedagogía del Caracol». A su vez, se tratará de desvelar cómo podría ser definida tal propuesta, identificar los principios sobre los que se sustentaría, y enunciar algunas de sus finalidades educativas. Tal estudio se ha llevado a cabo desde una metodología de corte cualitativo, a través de técnicas, como la revisión bibliográfica y documental de las obras del maestro Zavalloni, así como de diversas entrevistas a su entorno personal y profesional. A la luz de los datos obtenidos, cabe afirmar que, más que un enfoque, un modelo pedagógico o una metodología, la Pedagogía del Caracol resulta ser una corriente pedagógica a partir de la cual se puede configurar un método educativo desde una mirada paidocéntrica. La Pedagogía del Caracol, al igual que la Educación Lenta, tendría entre sus finalidades enmarcar a aquellas pedagogías que valorizan el tiempo en la educación y persiguen dotar a los niños y a las niñas de las habilidades y los valores necesarios para ser dueños y dueñas de su tiempo.

Descriptores: tiempo educativo, métodos pedagógicos, teorías educativas, pedagogías alternativas, modelos de enseñanza.

1. Time of childhood: from simple working energy, to an insurmountable garden

The concept of time is not a homogeneous matter, but rather a historical construct subject to a specific social imagination (Ramos, 1992). As such, interpretations and experiences of it are different at each historical point in time and in every society. The same occurs with time (and periods of time) in education. Throughout history, perspectives have ranged from using the time of childhood as a mere source of working energy, to considering —like in the era of Romanticism— it and childhood itself as a garden in bloom that will never return.

In the mid-18th century, with the emergence of the Industrial Revolution, children were considered as small adults and they formed part of the workforce just like other workers. Towards the end of the century, along with Romanticism, another

understanding of childhood emerged in Europe, which saw it as a stage characterised by imagination and innocence. Despite this new idea of childhood, over another one hundred years would have to go by before the consequences of child labour would be seen, and it wasn't until the end of the 19th century that children started to be taken out of factories and put into schools (Ariès, 1987; DeMause, 1991).

In the 21st century, characterised by progress and innovation, we can find some defects —differences aside—, in that period of time. It is a type of schooling governed by stringent timetables, predetermined calendars, set goals, and successes and failures assessed, ultimately, by external bodies. In short, it regards a production-line system in the purest Taylorism style, where the resource stolen from childhood is one of the most precious: time.

2. Slow education to reintegrate time into childhood

The idea of slowing down the pace in schools that slow education provides for, while bringing with it a historical legacy from other methodological approaches, is backed by different studies (Caride, 2012; Levstik, 2014; Mattozzi, 2002; Pàges and Santisteban, 2008; Pérez, 1993). These studies justify the need to slow down the teaching-learning processes to the benefit of the entire education community. In terms of school time, there are studies that demonstrate that the learning construct largely depends on how time is organised in the education centre, as well as on the quality of the student-teacher interaction du-

ring said time (Carnoy 2010; Carroll, 1963; Fisher and Berliner, 1985). Other studies suggest that it is the appropriate use of time in schools that enhances its benefits as an educational resource (Abadzi, 2007; Scheerens, 2014).

Over the last decade, there has been an increase in the number of studies conducted on the use and management of time in education, based, mainly, on the exploration of quality. These studies go so far as to question the authenticity of quick learning and even cast doubt on the ethics of such practice (Lewis, 2017). Similarly, other studies point to the need for qualitative rather than chronological time, and set out the benefits that, in the educational field, 'wasting time' may have, based on the work of prestigious authors, such as Rousseau (Shuffelton, 2017). Furthermore, research, such as that of Burbules (2020), which also acknowledges slowness as a virtue, stresses the importance of having the knowledge to determine the degree of slowness appropriate for each task and/or situation.

This vision of time as a quality rather than a quantity has developed and become one of the principles of so-called alternative teaching, which includes slow education.

3. The emergence of slow education

As with the slow movement, the scope of slow education is extensive, although this is due more to its renegade nature than to the corresponding scientific

theorisation and systemisation (Quiroga and Sánchez-Serrano, 2019).

Slow education has arisen almost simultaneously in different countries and for essentially similar reasons. Despite that simultaneity, it has its origin in Italy, given that both its history and the most significant pioneers of it can be traced back there.

3.1. Italy and *La Pedagogia della Lumaca.* The origins of slow education

In the educational field, an extensive number of pedagogues, such as d'Aquino, da Feltre, Don Bosco, the Agazzi sisters, Don Milani and Montessori, have placed Italian pedagogy in an outstanding position in the history of Western education (Moreu, 2014).

Italy has also played a decisive role in terms of the emergence of the recent slow education. That is due not only to the fact that it is where the slow movement originated in 1986 (Honoré, 2005), but also to the fact that a large part of the foundations of slow education can be found in the pedagogical contributions of the Italian teacher, Gianfranco Zavalloni, in his book *Pedagogia della Lumaca.*

This paper will set out the data that, through the research conducted, are considered most relevant as regards the emergence of slow education. Through the documental analysis and interviews carried out with those in his closest personal and professional circles, the figure of Gianfranco Zavalloni (1957-2012) and his pedagogical proposal, known in Spain as *La Pedagogía del Caracol* (hereinafter referred to as Pedagogy of the Snail or PS), are analysed.

Studying its characteristics, slow education reflects certain traits shared with different methodologies that have materialised throughout the history of education in Italy. The everyday nature it fosters (Ritscher, 2017) resembles the educational approach of the Agazzi sisters, whereas the interest in fostering autonomy — respecting individual paces —, resembles that of their contemporary, Maria Montessori, who, in turn, based a large part of her work on Froebel (Bruce, et al., 2018).

Slow education has also absorbed other influences from Italy, including the pedagogy of Don Milani at his full-time Barbiana school and that of Loris Malaguzzi at his Reggio Emilia schools, where both time and space are constituent elements of learning. Said educational approaches, together with the emergence of the slow movement in Italy and the presence of the unique *Pedagogia della Lumaca*, allow us to establish Italy as the origin of slow education.

In Italy, we find someone who, due to being, in part, its creator and, largely, its implementer, could be considered the greatest exponent of slow education, the teacher, Gianfranco Zavalloni. His book, *Pedagogy of the Snail* (*Pedagogia della Lumaca)* (2008b), is the purest representation of slow education in Italy. In it, the teacher developed a didactic proposal on how to slow down time at school, which offers inspiration today to those who want to educate at another pace.

4. Gianfranco Zavalloni. Pedagogical characteristics and teacher identity[1]

To achieve one of the objectives of this study, we will look at the figure of Gianfranco Zavalloni, developing the most significant characteristics of his pedagogical thinking and seeking to uncover his teacher identity by identifying his inspirations and analysing his most relevant work: *Pedagogy of the Snail*.

Zavalloni obtained a degree in economic sciences in 1983. Through one of the teachers he most admired, Carlo Doglio, he came to know the man who would greatly inspire his thinking, the economist, Friedrich Schumacher. The Italian teacher shared the same ideas as the transcendentalist, Henry David Thoureau. He also shared Ivan Illich's ideology on the deschooling of education, a man he would meet at a seminar in Bologna in 1998. These two figures were the seeds of Zavalloni's *forma mentis* and, as a result, of his pedagogy.

The ecologist movement influenced Zavalloni's thinking and action. The teacher was one of the founders of Ecoistituto, a not-for-profit organisation founded in Cesena in 1986. The centre was open to the entire education community and it was dedicated to study and praxis. Conferences, seminars and meetings relating to education, particularly regarding technology and ecology, were also held there (Magnolini, 2013).

Throughout his career, Zavalloni highlighted the community nature of artisan technology, relating it to the teamwork done by land workers. Rabitti recalls:

> He always said that he considered the exchange between people to be the simplest and easiest technology that human beings can and should make the most of, particularly in our era in which the tendency is to separate individualities, experiences and memories (Rabitti, 2013, p. 37).

Through his connection to the ecologist movement, Zavalloni also backed the degrowth movement, coming to consider his book, *Pedagogy of the Snail*, the pedagogy manual for 'happy degrowth':[2]

> The happy degrowth perspective mirrors my own and I think *Pedagogy of the Snail* could be the pedagogy manual for happy degrowth. I believe it to be a very important movement and I hope it gains increasing traction […], it will likely be a prophetic movement (Tabellini, 2002).

Given the current situation, where the movement for a sustainable planet seems to be gaining more importance at the political and social level, and almost two decades after Zavalloni expressed such ideas, we can confirm that the teacher was not mistaken in labelling these movements as 'prophetic'.

Zavalloni grew up surrounded by nature, which made him appreciate its pace and find interest in the value of time.

> Country life is connected to cyclic time: sowing, waiting and harvesting. Time there is adapted to the four seasons. (…) I reflected on it reading texts entirely dedicated to the relationship that man has with

time. Jeremy Rifkin and his book *Time Wars: The Primary Conflict in Human History* (1989) (…), and David Le Breton's book *Eloge de la marche* (2000), a reflection on the importance of walking, helped my thinking (Zavalloni, 2008b, p. 36).

The outcome of Zavalloni's reflections can be seen throughout his life, establishing his lines of thought and, subsequently, of his pedagogy. Zavalloni's essence of time was closely connected to that of nature. With its pace, he learned to be aware of the need to respect it, as well as the importance of 'idle time', which he would also incorporate into his pedagogy.

> The idea of 'wasting time', of patiently waiting for a specific cycle to finish, is characteristic of the work of land workers, the land itself and of the countryside. Furthermore, if we think about it, there are no pauses on the land that not productive; wasted time is biologically necessary and it is often filled with preparatory work for other cyclical events, such as harvesting and sowing (Zavalloni, 2008b, p. 37).

Zavalloni's temporal conception was evidently cyclical, assuming that the arrow of time was that which commanded the consumer society by means of the imposition of quick passing time.

> (…) speed is connected to linear time, to industrial production based on using and discarding, on a model of society that consumes and is not concerned about returning to natural cycles insofar as goods and energy, and raw materials and people. It is an 'arrow of time' that does not wait (ibid).

Zavalloni's greatest contributions were no doubt to the education field. Those who had the chance to work with him believe that it was in school where the teacher unleashed all his charisma and creativity. His teacher profile was child-focussed, subscribing to the experimental, naturalist or romantic pedagogy model, as was fostered by Rousseau, Illich and Neill.

As with his thinking, the teacher's pedagogical training stemmed from many sources. Although PS is new way of understanding education, it too is based on prior sources and incorporates elements from others that share the same principles. We refer, mainly, to pedagogy focussed on respecting the pace of development and learning, and, in general, to those that establish a different way of managing time within the educational process. In this regard, we could mention Lorenzo Milani, one of the inspirations behind the pedagogical overhaul in Italy and an important point of reference for Zavalloni; albeit the pedagogy implemented by the parish priest was rather more strict than that of the Cesena teacher.

We could also point to Maria Montessori as another point of reference for Zavalloni on, e.g., his goals on 'education for peace' (Britton, 2000) or in undertaking certain activities, such as that of silence, that Zavalloni, following in the footsteps of Montessori, carried out at least once a week (Michelini, 2017b). Both had the same rigorous criteria in terms of choosing the quality of the material used, although Montessori was rather more structured and methodical

when working with it. Furthermore, Montessori dedicated most of the day to individual work in order to develop certain skills (Montessori, 1913). This aspect of her pedagogy differed from that of Zavalloni, which advocated teamwork. In this regard, as confirmed by Ivana Lombardini,[3] the teacher was more aligned to other lesser-known Italian pedagogues, like Alberto Manzi, who worked with the didactic garden and drawing.[4]

There are resemblances of the pedagogy of Reggio Emilia, for example, in Zavalloni's tendency to document and in the importance that time and space acquire within educational development. That said, there are significant differences between the Reggio schools and that of PS, such as ownership, as Malaguzzi's is of a private nature.

The use of the natural environment as a main element in the educational process also leads us to relate PS with Waldorf education, albeit the model created by Steiner regards a set structure of the teaching-learning process, which distances it somewhat from Zavalloni's proposal.

However, the influences of PS are not only found in figures of the educational field. Architects, such as Frank Lloyd Wright (Zavalloni, 2008b), forefather of bio-architecture and fosterer of the Prairie School, was also a source of inspiration for his ideology.[5] In Rabitti's words: "Our projects, from the workshops for children up to those for adults, are based on constant continuity between architecture, art and pedagogy" (Rabitti, 2013, p. 34).

On delving into the background and influences of PS, we find that the educational models, in which the teaching-learning process is adapted to the time and pace of child learning and not the other way around, served as sources of inspiration for Gianfranco Zavalloni.

5. Pedagogy of the Snail

In 2002, Zavalloni attended a training course organised by Gruppo Educhiamoci alla Pace (GEP)[6] in Bari. The activities carried out on the course included drawing, writing with ink and a nib pen, hand building, talking in the local language, playing, walking, resting, etc. Through these and other tasks, he was able to reflect on the idea of 'slowing school down' and, from that, the pedagogical proposal arose that the teacher would metaphorically call *Pedagogia della Lumaca* (Pedagogy of the Snail).

After several years compiling information and documents, Zavalloni, encouraged by his life partner, Stefania Fenizi, also a teacher, decided to put his teaching ideas and experience into a book:

> *One afternoon, we were at home, which is on a hill in Cesena. I was lying in the hammock, doing nothing (apparently) (...), he said to me: "What are you doing?". I said: "Nothing." / "Can you really not do anything?" / "Yes." / And what do you call that 'not doing anything'? / "I call it creative leisure, Gianfranco." Later, I gave him a book called 'Ozio, Lentezza e Nostalgia'.[7] As a result, he got the urge to put his thinking into a book.[8]*

The scene described by Fenizi reminds one of the slow thinking referred to by Claxton (1999), with no set goal that does not seek discovery and is associated to leisure time.

Zavalloni's thoughts on time and education were included in his book *Pedagogy of the Snail* and further established in what he called 'didactic strategies of slowing down'. These entailed nine guidelines to challenge, at school, the dizzying pace of Western society: 1) spend time talking; 2) go back to pen and ink; 3) stroll, walk and move on foot; 4) draw instead of photocopying; 5) look at the clouds in the sky and out of windows; 6) write letters and postcards; 7) learn to whistle; 8) grow a vegetable garden (Zavalloni, 2008b).

The strategies provided by Zavalloni, albeit resulting in a somewhat naive-style, encompass the principles of a kind of pedagogy that has changed a large part of the Italian education scene over the last decade (Guerra & Zuccoli, 2017; Michelini, 2017b). Exploring those strategies, together with the PS study and Zavalloni's other written works, as well as those regarding him as a person and the analysis conducted on the accounts obtained in the interviews, has helped us to achieve the second objective proposed in this paper: identifying the principles that underpin PS. Those principles, which we will call the fundamental principles of Pedagogy of the Snail, are as follows: 0) unitary educational time; 1) using our hands; 2) ecology and territoriality; 3) documenting; 4)

appropriate technologies; 5) suitability of material and space; 6) teacher identity and training. These principles are not presented here as fixed guideline, but rather as key PS starting points.

0. *Unitary educational time*

PS considers time as a fundamental element in the education process and one of the main matters is the way in which time is allocated in schools. Zavalloni suggests that schooling does not exceed 24 hour per week and he considers that, for the learning throughout the week to be meaningful, the hours must be equally divided between activities that involve pleasure, commitment and skills.

To undertake such time management, Zavalloni divides the school day/week into three equal parts: 1) play time (pleasure); 2) time for sharing/acquiring the cultural components of symbolisation and communication, such as reading, writing and talking (commitment); time for manual work and learning to live responsibly in the world (skills).

The school day/week proposed by the Italian teacher may at first seem rigid, but PS specifically involves, within those three areas, the non-existence of time subdivisions or the partitioning of knowledge in subjects. It is in this aspect where the essence of unitary time lies.

This vision of time in the school of Zavalloni is clearly reminiscent of qualitative time, of the Greek *Kairos*.[9] In the words of teacher, Michelini[10]:

Gianfranco was mainly of the idea that, for learning to develop in children, they need downtime, while feeling that their pace of learning is being respected.[11]

As regards time in quantitative terms, Michelini said of Zavalloni:

Asking oneself how much time children need to learn and how much time to give them is also essential in Pedagogy of the Snail. It is a mathematical function, based on the model of school learning,[12] but, in my opinion, Zavalloni surpasses Carroll. Gianfranco said: "We will be the protagonists of our lives when we are the masters of our own time."[11]

Based on Zavalloni's ideas, Michelini suggests the need for the entire school community to think about educational time from a pedagogical, didactical and organisational perspective, in order to decide on the kind of school they want to be; in other words, under what idea of time they want to educate young generations (Michelini, 2017b).

1. *Using our hands*

From Zavalloni's perspective, hands are the most powerful tool that humans have to achieve their autonomy. Zavalloni sees in them two key elements: instrumental and writing use.

According to Zavalloni (2008b), there is a gradual decline among children of them using their hands and engaging in motor-skill-enhancing activities, such as using spinning tops, playing with balls or using slingshots, which have fallen into disuse, particularly with the emergence of new technologies. Each activity mentioned requires hours of dedication, without rush and enjoying the process, to master it. Manual work, such as craftwork, requires a lot of time.

Zavalloni believes handwriting to be one of the most appropriate ways of stimulating and structuring thought, while being an action involving a good motor-skill exercise, essential for expression and communication. Handwriting, for example, favours harmonious personal development. The mental process required to use our hands is different from that of other skills and, as such, so is the learning achieved. It's a learning process that requires an abundance of time, doing and redoing, and knowledge geared towards creativity.

This principle is one of the most controversial in the current educational scene, as it totally opposes the trend of fostering 'the most' and 'the quickest' as a synonym of 'the best', as done to date, according to the leading advocate of slow education in England, Maurice Holt, in 'fast education' (Holt, 2002). With this term, Holt referred to the business nature that the English education system adopted with the 1988 Education Reform Act.

2. *Ecology and territoriality*

Based on these specific actions and minor behaviours in school, such as eliminating photocopies, growing vegetable gardens, recycling materials, and consuming natural and 0-km products,

PS aims to create a culture, on both an individual and group level, committed to ecology and territoriality. Zavalloni, in terms of one's relationship with nature, believes that schools should have a land-worker mentality and, in turn, be up to speed on today's ecological issues.[13]

Zavalloni (2008b) was critical of the organising of trips and excursions hundreds of kilometres away when students had not even been to the river closest to their home. He also thought it impossible to feel European without knowing the territory that surrounds you or without having a close connection to the land. Zavalloni's proposal establishes a kind of 'close proximity education', which seeks to use the closest resources and gain knowledge of the surrounding environment through didactic activities, such as excursions on foot and bike, which make the journey itself an educational experience. In PS, it is essential to know our nearest surroundings to subsequently grasp the totality of it all.

3. *Documenting*

Documenting vs evaluating. Evaluating academic outcomes with terms such as 'results', 'evaluation', and 'academic standards', correspond to an economic and business system, not a school one. However, through documenting, a corpus can be created of an individual or group trajectory by means of observing and recording information (Zavalloni, 2008b). The Italian teacher believes that documenting is the real way

to evaluate or assess. In Magnolini's words:

> Another thing I learned from Gianfranco is to document everything (...), he called it 'inductive pedagogy'. Gianfranco always had a camera in his pocket (...), and a notebook in which to write and draw. I think that was down to a love of reminiscing, not to make others see how good he was; it was to have the chance to reflect and to be able to share and disseminate his understanding (Magnolini, 2013, p. 18).

Documenting in school was a pedagogical need for Zavalloni. He considered that resources such as a field diaries, everyday works and projects undertaken in the centre could form part of the documentation, which he called '*la traccia*' [the trail].

4. *Appropriate technologies*

Zavalloni deems a technology to be appropriate if: 1) on a social level, it improves the state of a person; 2) on an economic level, it uses the world's resources intelligently; 3) on an ecological level, it respects the natural balance; and 4) on a political level, it decentralises the power of government and shares it out among the people. Ultimately, Zavalloni considers a technology to be appropriate when it resolves more problems that it causes (Rabitti, 2013).

Zavalloni discussed his concerns in a letter sent to a friend, Mario Lodi, who was also a teacher and an important figure in the overhaul of the Italian pedagogy of the 20th century. In the letter,

Zavalloni stressed the importance of the appropriateness of teaching-learning times, as well as the precedence of some over others.

I'm not against technology, but I believe there is a particular time for each activity: if we didn't teach children how to ride a bike, it would be difficult for them in adulthood to learn following the whole process that would have been done in childhood. If children aren't shown how to use a carving knife, they will no doubt learn how to use a computer well; but they will not know how to use their hands for other things, and they will not develop the psychomotricity that comes from using certain tools (Zavalloni, 2009a).

Zavalloni considers new technologies to be just as valid as the traditional technologies, even the earliest ones. As such, he believes they should be present in everyday life, but never at the detriment of others. The PS proposal does not entail, therefore, turning one's back on ICT. What Zavalloni suggests is choosing the technology appropriate for each situation and using it always to the benefit of people and/or the environment. This perspective is very reminiscent of that of Heidegger (Heidegger, 2002).

5. *Suitability of material and space*

Choosing material and furniture based on quality criteria compared with financial criteria, together with them being ergonomic and locally produced, is another trait of PS. Zavalloni suggests using natural materials, mainly wood, and avoiding plastic and metal. A learning environment in which children can use their hands in order to experiment, handle, create and build, use a handsaw for woodwork, acrylic colours for painting... all of good quality (Zavalloni, 2008b). Rabitti (2013) also points to the conviction of Zavalloni on the educational value of artefacts created from materials provided by nature (sand, logs, stones, seeds, soil, etc.).

According to Zavalloni (1996), a slow school must be designed down to the smallest detail, including its aesthetical appearance, something on which the Italian teacher placed great importance, regarding both indoor and outdoor spaces. On a number of occasions, he turned to architects and other design and space refurbishment specialists and, above all, to those who Zavalloni considered to be the greatest specialists (following the approach of Mario Lodi): the children that use the educational space.

6. *Teacher identity and training*

Teachers on a mission Zavalloni suggests this teaching figure based on the idea of Don Milani or Morin, and on his own with regard to school and its social mission. The author distances himself from the omnipotent, permanent evaluator and assessor teacher figure, championing one that forms connections to enhance both his/her and the group's abilities, while also fulfilling the corresponding duties without relegating others (Zavalloni, 2008b).

Cultural thickness and contamination. These two concepts standout in

the discourses analysed on Zavalloni's vision of teacher training. The first involves the training itself and the level of it that the teacher has (cultural thickness). The second, entails how training should reach teaching staff (contamination), opposed to its imposition. When training is given by peers and based on observable experiences and results, it is better received. According to Ferrari[14], Zavalloni deemed it essential that educators had sufficient cultural thickness, as well as the corresponding changes in school, which should be undertaken through contamination in order to be effective.[15]

To end what we have sought to be an explanation of PS based mainly on a study of the character of its creator and the proposal itself, the consistency found between Zavalloni's thinking and praxis, which lies between a practical philosophy of education and the author's political vision, must be mentioned.

6. Methodology, focus, model, trend

Having studied the pedagogical thinking of the ideology behind Pedagogy of the Snail and having identified the fundamental principles on which it is based, we will now seek in this synopsis, and by way of conclusion, to clarify where PS belongs within the different terms used to refer to the pedagogical practices that are implemented, as well as some of the criticism received from the educational field.

PS is not defined as a method by Zavalloni or by those who worked on setting it up and who continue to foster it today. For Papetti[16], the matter is clear:

> *His work is not a method, but rather it takes from here and there, (…) it is how he intended his book to be used: each person taking what interests him/her, not following it like an instruction manual (…). It's not like a Montessori or Steiner school, that have a specific method.[17]*

Michelini (2017b) also refers to the guidelines that Zavalloni sets out in his book as lessons that must not be interpreted in a reductive manner, but rather as coherent and necessary options for the idea of school that Zavalloni puts forward.

Sandra Villa[18] also doesn't consider PS to be a methodology in itself, but rather a way of creating a method based on a child-centred educational perspective.

> *I consider it to be a proposal from which methodologies can materialise (…); it's a vision, a focus on children, developing it in their natural environment and centred on their needs (…).[19]*

The vision of the teacher, Silvia Marconi[20], also shares the idea of not considering PS as a methodology. Marconi says that PS provides some key elements on which each teacher can develop their own educative action.[21]

Therefore, based on the accounts compiled, review of Zavalloni's work and that of others regarding him, and on the visits and periods of stay at different education centres, it can be said

that PS is configured more like a pedagogical trend from which an educational method can be set up, rather than an approach, pedagogical method or methodology.

This educational focus is not baseless, as it can materialise through seven fundamental principles that are —more than being prescriptive—, of reference and are based on diverse, prior educational postulates and paradigms. As such, pedagogues, who value time in education and who seek to provide their children with the values required to be masters of their own time, can embrace the foundations of PS.

Neither PS nor slow education is without critics from the education field. Perhaps one of the strongest oppositions is from the East. In Japan, a country with an educational system characterised by constrained timetables and rigorous assessment, different institutions have stated that, with the implementation in 2002 of the slow education pilot programme, the 'slow generation' (Euronews, 2015) emerged, a title no doubt incompatible with the requirements of the Japanese education model.

The example from Japan helps us to see that, in the same way that slow education is not valid for all children, the same is also true of cultures in which, like Japan, speed and haste are part of success. In this regard, Western culture has some similar values, although the fact that they have been introduced more recently allows for the possibility

of rethinking the idea of time in education.

NOTES

[1] The following content is based on interviews carried out over two research periods in Italy between April and July 2017 and 2018 at the Faculty of Education Sciences of the Salesian Pontifical University of Rome in Venice (IUSVE) and at the Faculty of Education Science of Catholic University 'Sacred Heart' of Milan, respectively.

[2] The Movimento per la Decrescita Felice (MDF) (*Movement for Happy Degrowth*), following the degrowth postulate, emerged in 2000 in Italy. The initiative, launched by Maurizio Pallante (one of the inspirations in Gianfranco Zavalloni's thinking), aims to demystify development for the sole purpose of self-development.

[3] A teaching staff colleague of Zavalloni. Teacher of pre-school education and founder of Fulmino publishers.

[4] Lombardini, interview, 20 June 2017.

[5] The Prairie School. An architectural style that emerged in England in the 19th century that is based on crafted construction rather than mass production.

[6] http://www.gruppoeduchiamociallapace.it/

[7] *Ozio lentezza e nostalgia. Decalogo mediterraneo per una vita più conviviale.* Book published in 2002 by Christoph Baker, consultant for humanitarian and environmental organisations and author of critical essays on mass development and consumption.

[8] Fenizi, interview, 20 June 2017.

[9] Kairos is the son of Zeus, who, on putting an end to the tyranny of Kronos, became the master and guardian of cosmic order. The term *Kairos* seems to be related to time, but also to luck, fortune and opportunity.

[10] Associate Professor at the University of Urbino. Her lines of research focus on teacher training, critical pedagogy and ICT. Specialist on time in Pedagogy of the Snail and friend of Gianfranco Zavalloni.

[11] Michelini, interview, 22 June 2017.

[12] Carroll (1963) combined in his school learning model the following five elements, considering time

as a key factor in the learning process: 1) Ability of the students; 2) capacity to understand; 3) perseverance — understood as the amount of time that students are willing to dedicate to a task —; 4) opportunity — time available to learn — , and 5) quality of instructions. These five elements contribute to the time needed to learn or to the time used in learning. Carroll said that the degree of learning can be described as a proportion between the (a) time needed to learn, and (b) time really used to learn.

[13] Papetti, interview, 20 June 2017.

[14] Work colleague of Gianfranco. Pedagogue and head of the Sogliano Rubicone centre —where Gianfranco was a teacher of pre-school education—, during academic year 94/95.

[15] Ferrari, interview, 20 June 2017.

[16] Currently considered to be one of the most important *giocattolai* [*artisan toy maker*]. Through play and with toys, Roberto Papetti works on environmental education, education for peace and artistic education. He gives talks, conferences, teacher training courses and workshops, where he makes toys with his own hands in order to demonstrate and disseminate the importance of playful activity in childhood. Papetti defends retaking the streets as a play area and the return of playtime and traditional instruments.

[17] Papetti, interview, 20 June 2017.

[18] Head of Liceo "G. Cesare – M. Valgimigli" (Rimini). Former head of Istituto Comprensivo "Gianfranco Zavalloni" (2007-2016). Teacher of pre-school and primary school education. Pedagogical adviser for the construction of a new school in Rimini inspired by Pedagogy of the Snail.

[19] Villa, interview, 4 May 2018.

[20] Teacher of primary education at Istituto Comprensivo "Gianfranco Zavalloni" and member of Grupo Zav, an organisation created in 2006 with the aim of reinforcing the thinking of Gianfranco Zavalloni.

[21] Marconi, interview, 4 May 2018.

References

Abadzi, H. (2007). *Absenteeism and beyond: Instructional time loss and consequences.* The World Bank. Independent Evaluation Group.

Ariès, P. (1987). *El niño y la vida familiar en el Antiguo Régimen [The child and family life in the Ancien Régime].* Taurus.

Britton, L. (2000). *Jugar y aprender: el método Montessori [Play and learn: the Montessori method].* Paidós.

Bruce, T., Elfer, P., Powell, S., & Werth, L. (2018). *The Routledge international handbook of Froebel and early childhood practice: Re-articulating research and policy.* Routledge.

Burbules, N. C. (2020). Slowness as a virtue. *Journal of Philosophy of Education*, *54* (5) 1443-1452. https://doi.org/10.1111/1467-9752. 12495

Caride, J. A. (2012). Lo que el tiempo educa: el ocio como construcción pedagógica y social [What time educates: Leisure as a pedagogical and social construction]. *Arbor, 188* (754), 301-313. https://doi.org/10.3989/ arbor.2012.754n2004

Carnoy, M. (2010). *La ventaja académica de Cuba ¿Por qué los estudiantes cubanos rinden más? [Cuba's academic advantage. Why do Cuban students perform better?]* Fondo de Cultura Económica.

Carroll, J. B. (1963). A model of school learning. *Teachers College Record*, *64* (8), 723-733.

Claxton, G. (1999). *Cerebro de liebre, mente de tortuga: Por qué aumenta nuestra inteligencia cuando pensamos menos [Hare's brain, tortoise's mind: Why our intelligence increases when we think less].* Urano.

DeMause, Ll. (1991). *Historia de la infancia [Childhood History].* Alianza.

Euronews (2015, June 12). *Luces y sombras de la educación lenta [Lights and shadows of slow Education].* Euronews. https://bit. ly/3kSGuEb

Fisher, Ch., & Berliner, D. (1985). *Perspectives on Instructional Time.* Longman.

Guerra, M., & Zuccoli, F. (2017). Le cose dei maestri [Teachers' matters]. In S. Annicchiarico (Ed.), *Giro Giro Tondo. Design for Children* (pp. 360-363). Electa. https://bit. ly/3iM1Hhs

Heidegger, M. (2002). *Serenidad [Serenity].* El Serbal.

Holt, M. (2002). It's time to start the slow school movement. *Phi Delta Kappan, 84* (4), 264-271. https://doi.org/10.1177/003172170208400404

Honoré, C. (2005). *Elogio de la lentitud [In praise of slowness].* RBA.

Levstik, L. (2014). What can history and the social sciences contribute to civic education? In P. Pagès & A. Santisteban (Eds.), *Una mirada al pasado y un proyecto de futuro. Investigación e innovación en la didáctica de las ciencias sociales* (pp. 43-51). Servei de Publicacions de la UAB/AUPDCS.

Lewis, T. E. (2017). Study time: Heidegger and the temporality of education. *Journal of Philosophy of Education, 51* (1), 230-247. https://doi.org/10.1111/1467-9752.12208

Magnolini, A. (2013). Le mani per scoprire il mondo [Hands to discover the world]. In S. Fenizi, C. Cavalli, & D. Amadori (Coord.), *Disegnare la vita. I modi di Gianfranco Zavalloni* (pp. 10-23). Fulmino.

Mattozzi, I. (2002). Presentazione per il docente. La formazione del pensiero temporale negli adolescenti [Teacher presentations. The development of temporal thinking in adolescents.]. In E. Perillo (Ed.), *La storia. Istruzione per luso. Materiali per la formazione di competenze temporali degli studenti* (pp. 9-22). Tecnodid.

Michelini, M. C. (2017b). La libertà del tempo [The freedom of time]. In *L'eredità dei grandi maestri. Storie di un passato da riscoprire per rispondere alle sfide del presente* (pp. 28-31). Centro Alberto Manzi.

Montessori, M. (1913). *Il metodo della pedagogia scientifica applicato nelle Case dei Bambini [The method of scientific pedagogy applied in Children's Homes].* Loescher.

Moreu, A. (2014). La recepción española de la pedagogía positivista italiana [The Spanish reception of Italian positivist pedagogy]. In J. M. Hernández (Coord.), *Influencias italianas en la educación española e iberoamericana* (pp. 117-137). FahrenHouse.

Pagès, J., & Santisteban, A. (2008). Cambios y continuidades: aprender la temporalidad histórica [Changes and continuities: learning historical temporality]. In M. A. Jara (Comp.), *Enseñanza de la historia. Debates y propuestas* (pp. 91-124). Educo.

Pérez, P. (1993). El tiempo antropológico [The anthropological time]. In P. Fermoso (Coord.), *El tiempo educativo y escolar: estudio interdisciplinar* (pp. 71-72). Promociones y Publicaciones Universitarias, PPU.

Quiroga, P., & Sánchez-Serrano, S. (2019). La educación lenta en perspectiva histórica: conceptualización, desarrollo y concreción en las iniciativas de Madre de día Waldorf en España [Slow education in historical perspective: conceptualisation, development and concretisation in the Waldorf Day Mother initiatives in Spain]. *Educació i Història: Revista d'Història de l'Educació, 34*, 121-147. https://doi.org/10.2436/20.3009.01.232

Rabitti, A. (2013). Costruire con la semplicità. Tecnologia, natura è società [Building with simplicity. Technology, nature and society]. In S. Fenizi, C. Cavalli, & D. Amadori (Coord.), *Disegnare la vita. I modi di Gianfranco Zavalloni* (pp. 29-38). Fulmino.

Ramos, R. (1992). *Tiempo y sociedad [Time and society].* CIS.

Ritscher, P. (2017). *La escuela slow. La pedagogía de lo cotidiano [The slow school. The pedagogy of the everyday].* Octaedro.

Scheerens, J. (Ed.) (2014). *Effectiveness of Time Investments in Education. Insights from a Review and Meta-Analysis.* Springer.

Shuffelton, A. (2017). Jean-Jacques Rousseau, the mechanised clock and children's time. *Journal of Philosophy of Education, 51* (4), 837-849. https://doi.org/10.1111/1467-9752.12246

Tabellini, F. (2012, May 22). Intervista a Gianfranco Zavalloni [Gianfranco Zavallonni Interview]. *Decrescita felice social network*. http://www.decrescita.com/news/intervista-a-gianfranco-zavalloni/

Zavalloni, G. (1996) *La scuola ecológica [The ecological school].* Macro.

Zavalloni, G. (2008b). *La pedagogía del caracol. Por una escuela lenta y no violenta [The pedagogy of the snail. For a slow and non-violent school].* Graô.

Zavalloni, G. (2009a). Gianfranco Zavalloni's letter to Mario Lodi. Consulted in the family archives, Cesena, 2017.

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Analysis of a survey on the teaching of writing in compulsory education: Teachers' practices and variables*

Análisis de una encuesta sobre la enseñanza de la escritura en la educación obligatoria: prácticas y variables del profesorado

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Abstract:

In this article, we analyse the reported use of evidence-based practices for the teaching of writing by teachers in compulsory education. These practices were taken from a review of meta-analysis studies in the field of writing instruction. This study accounts for differences throughout compulsory education in the use of these instructional practices. We also analyse the effects of teachers' variables such as personal efficacy, general efficacy, attitudes and, preparation, on the instructional practices they use. Five-hundred and fifteen teachers of Spanish language and literature from different primary and high schools in Castilla y León participated in the study. Participants completed an online questionnaire about how often they use evidence-based practices taken from an exhaustive review of meta-analyses in the field of writing instruction. In addition, we took measures of teachers' personal and general efficacy, their attitudes towards writing

and the teaching of writing, and their level of preparation to teach writing. The results show that teachers make little use of this type of instructional practice, especially in high school. High school teachers reported significantly lower levels of personal efficacy and preparation for the teaching of writing than teachers in primary grades. Teachers' personal efficacy level, their preparation for the teaching of writing, and their attitudes towards writing and its teaching influence their use of these instructional practices.

Keywords: teaching of writing, teacher, primary education, high school, evidence-based practices, teacher efficacy, attitudes towards writing, level of preparation.

Resumen:

Se analiza el uso que el profesorado de educación obligatoria afirma hacer en su enseñanza de la escritura de prácticas instruccionales efectivas derivadas de una revisión de meta-análisis en el ámbito de la instrucción en escritura, considerando sus diferencias a lo largo de la educación obligatoria y la influencia que tienen variables del docente, como su eficacia, sus actitudes y su preparación. Participaron 515 docentes de Lengua Castellana y Literatura de diferentes colegios e institutos de enseñanza secundaria de Castilla y León. Se aplicó de forma *on-line* un cuestionario sobre la frecuencia de uso de prácticas instruccionales cuya eficacia ha sido contrastada a nivel científico, derivadas de una exhaustiva revisión de estudios de meta-análisis de la instrucción en escritura. Se tomaron adicionalmente medidas sobre las creencias de eficacia personal y general del profesorado, las actitudes hacia la escritura y su enseñanza y el nivel de preparación percibido por los docentes para la enseñanza de la escritura. Los resultados muestran un uso infrecuente de dichas prácticas instruccionales, especialmente en la Educación Secundaria Obligatoria. Los docentes de la Educación Secundaria Obligatoria muestran niveles de eficacia personal y de preparación para la enseñanza de la escritura significativamente menores que el profesorado de Educación Primaria. El nivel de eficacia personal, el nivel de preparación para la enseñanza de la escritura y las actitudes hacia la escritura y su enseñanza influyen en el uso que los docentes afirman hacer de estas prácticas instruccionales.

Descriptores: enseñanza de la escritura, profesorado, educación primaria, educación secundaria obligatoria, prácticas efectivas, auto-eficacia docente, actitudes hacia la escritura, preparación percibida.

1. Introduction

Linguistic competence is recognised as a key competence for personal fulfilment, active citizenship, social inclusion, and employment (European Union, 2006). Linguistic competences include writing competence, command of which is fundamental in contemporary society for personal growth in various areas of life (Graham et al., 2015; Graham & Perin, 2007). In the field of education in particular, writing is a basic tool both for

learning in other subjects and for showing the learning students have acquired when evaluating their learning (Graham et al., 2015). In light of this, there is growing international concern about the large numbers of students who have not acquired adequate written competence by the end of their education (Kuhlemeier et al., 2013; National Center for Education Statistics, 2012; Office for Standards in Education, 2005). In Spain, the most recent reports published by the Ministry of Education show low performance by students in writing, both in primary education and in compulsory secondary education (Ministerio de Educación, 2010, 2011). Students' low performance in written competence raises questions about how writing is taught at school and how much the teaching of it uses instructional practices of scientifically proven effectiveness; a line of research of which the present study forms a part. A number of studies at an international level that focus on the teaching of writing in primary education (Brindle et al., 2016; Coker et al., 2016; Cutler & Graham, 2008; Gilbert & Graham, 2010 in the USA; De Smedt et al., 2016, in Belgium; Rietdijk et al., 2018, in the Netherlands; Dockrell et al., 2015, in the United Kingdom; Pacheco et al., 2009, in Spain) and in secondary education (Graham et al., 2014; Kiuhara et al., 2009, in the USA). However, as far as we are aware, no similar studies have been performed in Spain that consider primary and secondary education and analyse the extent to which teachers report using instructional practices for teaching of writing, the efficacy of which has been proven

in meta-analysis studies. An analysis of this sort would help rule out low performance or difficulties in learning of writing being the consequence of inadequate instruction, in line with the preventative focus linked to the now-prevalent response to intervention model (Arrimada et al., 2018).

1.1. Review of meta-analyses of writing instruction

Meta-analyses are vital to determine the efficacy of an educational practice. They provide an appraisal of the scale of the effectiveness of different educational practices, assessed through various studies, based on a comparable shared metric: effect size (Lipsey & Wilson, 2001).

By reviewing academic literature concerning meta-analyses published in the educational field of writing in recent years, we have identified a total of five meta-analyses published since 2007 (see Graham & Harris, 2018; Graham et al., 2015; Graham et al., 2012; Graham & Perin, 2007; Koster et al., 2015) (See Annexe I). This search considered meta-analyses that focus on instruction in writing as a teaching and learning objective, excluding ones centred on writing as a tool for learning. We also excluded meta-analyses on intervention in writing with students with learning disorders or low performance in writing.

After selecting the meta-analyses to be studied, we identified the effective instructional practices derived from them. These were divided into the two categories established by Graham and

Harris (2018) in their recent meta-analysis of the meta-analyses, differentiating between *practices relating to the teaching of different writing skills or dimensions* and *practices relating to different supports or frameworks for teaching it*. For each of these, we analysed the year groups for which their effectiveness had been corroborated and the effect size obtained in the different meta-analyses (Annexe I). Based on this review, we identified highly effective instructional practices for improving written competence at both educational stages (primary and secondary), which have an effect size equal to or greater than 0.7, such as: *explicit instruction in planning and review strategies*, *instruction in vocabulary relating to different text types*, *providing feedback to students about their texts*, and *setting objectives before writing the text*. It is also apparent that most of the effective practices endorsed in primary education are also endorsed in secondary education, except for *instruction in transcription skills* and *instruction in creativity*. Regarding *grammar instruction*, although the results indicate that it is not effective for improving students' written competence, we should note that this practice comprises the control instruction compared with other instructional focuses, and so we have chosen to include it in the analysis. Finally, regarding *process focus*, although it was included in the analysis, the results regarding its effectiveness are inconclusive given that the effect sizes obtained in the different meta-analyses analysed range from negative values of -0.05 to mean values of 0.48.

1.2. Teachers' variables that affect teaching of writing

When analysing the teaching of writing, various pieces of research have considered the influence different teacher's variables can have on it.

One of these variables is the teacher's efficacy in teaching of writing. According to Graham et al. (2001), this has been operationalised in two dimensions: personal efficacy, relating to teachers' confidence in their own knowledge and teaching skills, and general efficacy, which relates to their ability to use this knowledge to confront limitations deriving from contextual factors. The results of previous studies show that teachers' level of personal efficacy is related to reporting a greater use of effective practices supported by meta-analysis studies for teaching of writing (Brindle et al., 2016; Gilbert & Graham, 2010). However, no such relationship has been found when it comes to the level of general efficacy. It is important to note that these conclusions derive from studies done in the USA with teachers of years 3-6 of primary school. In Spain, only the study by Pacheco et al. (2009), which used a sample of 137 early-years and primary teachers, showed that the teachers' levels of personal and general efficacy determined the type of activities relating to writing that they use in class and the writing skills on which they work. Nonetheless, there are no data on how this variable influences teachers' reported use of instructional practices whose efficacy is proven by meta-analysis studies throughout compulsory education.

Another modulating variable is attitudes towards writing and the teaching of it, referring to the degree of importance teachers give to the teaching of writing and to writing as a skill (Brindle et al., 2016). The results of previous studies show that some positive attitudes are related to a greater use of instructional practices in writing whose efficacy is proven by meta-analysis studies. However, this conclusion derives from a single study from the USA with teachers in years 3-4 of primary school (Brindle et al., 2016).

Regarding the relationship between teachers' perceived level of preparation for teaching of writing and their reported use of effective instructional practices, the conclusions of previous studies from the USA are contradictory. Previous studies have shown that teachers who feel better prepared for teaching to write use effective practices whose effectiveness is backed by meta-analyses more frequently in years 3-6 of primary school and in the first years of secondary school (Brindle et al., 2016; Gilbert & Graham, 2010; Graham et al., 2014). Nonetheless, there was also empirical evidence for the absence of a relationship in teachers in the last years of secondary education (Kiuhara et al., 2009).

2. This Study

This study has three objectives. The first is to analyse the frequency of use of instructional practices whose efficacy for teaching of writing has been corroborated by meta-analysis studies reported by teachers from primary education and compulsory secondary education in Castilla y León. Possible differences are analysed according to three educational levels: years 1-3 of primary school, 4-6 of primary school, and 1-4 of secondary school. Secondly, we analyse teachers' reported levels of efficacy, attitudes, and level of preparation for teaching of writing, and the differences between them according to the three educational levels listed above. Finally, we analyse the influence these teacher's variables have on their reported use of these instructional practices, analysing whether this influence is maintained in the different educational levels studied.

To the best of our knowledge, this is the first study to analyse teachers' reported use of instructional practices for teaching writing, derived from an empirical review of meta-analyses of the field of writing, in Spain. Likewise, it uses a broad representative sample that covers all of compulsory education (primary education and compulsory secondary education), identifying three levels that allow comparison with other international educational settings by differentiating between years 1-3 of primary school, years 4-6 of primary school, and compulsory secondary education. Furthermore, the breadth of the sample makes it possible to analyse for the first time whether the influence of the teacher's variables analysed on the teachers' reported use of effective practices for teaching writing is consistent across the different educational levels analysed; this would allow us to cast some light on the existing gaps in knowledge in the scientific literature.

3. Method

This study used a survey methodology, administering a questionnaire to Spanish compulsory education teachers of Spanish language and literature in schools in Castilla y León. To administer the questionnaire, we used intentional sampling. We contacted by telephone the management of all of the schools in Castilla y León that deliver the primary and compulsory secondary educational stages. To do this, we used a list of schools in this Autonomous Region available on the website of the Education Department of the Junta de Castilla y León (http://www.educa.jcyl.es/es). We telephoned the management of these schools and asked them to collaborate by distributing and forwarding an email featuring information about the study, a link to access the survey, and instructions for completing it to all of their staff who teach Spanish language and literature at primary and/or compulsory secondary education level. Those who voluntarily chose to participate in the study could then complete the survey.

3.1. Participants

515 teachers of Spanish language and literature in primary education and compulsory secondary education from the nine provinces of Castilla y León participated in the study. Table 1 shows their distribution by educational level, gender, academic qualifications, the ownership of the school, the province where they teach, years of teaching experience, and the number of students in their group/class.

3.2. Instruments

We used Google Forms to design an online questionnaire with four sections[1].

— Section 1. Sociodemographic information.

This section collected descriptive data for the sample that are included in Table 1. We also included two items relating to teachers' perceived level of preparation for teaching of writing during their university training and afterwards through specialist courses, using the answer scale: none (1), minimal (2), adequate (3), and high (4).

— Section 2. Teachers' practices for teaching of writing.

We evaluated how often teachers reported using 20 effective instructional practices in the teaching of writing derived from the review of meta-analysis studies carried out in the instructional area of writing (see Annexe I).

Of these 20 items, 11 related to the teaching of different dimensions of writing and nine focused on different supports for teaching it (see Table 2). The response scale was: never (1), several times a year (2), once a month (3), several times a month (4), once a week (5), several times a week (6), and daily (7). The Cronbach's alpha was .93, indicating that the questionnaire used had high reliability.

— Section 3. Teacher efficacy in teaching of writing.

TABLE 1. Distribution of the sample by educational level.

Variable	Educational Level							
	1-3 Primary (*n* = 167; 32.4%)		4-6 Primary (*n* = 209; 40.6%)		1-4 Compulsory Secondary (*n* = 139; 27%)		TOTAL (*N* = 515)	
	N	*%*	**N**	*%*	**N**	*%*	**N**	*%*
Gender								
Male	17	10.2	56	26.8	46	33.1	119	23.1
Female	150	89.8	153	73.2	93	66.9	396	76.9
Qualification								
Diploma	121	72.5	134	64.1	7	5.0	262	50.9
Bachelor's Degree	38	22.8	63	30.1	117	84.2	218	42.3
Master's	6	3.6	6	2.9	8	5.8	20	3.9
Doctorate	1	0.6	3	1.4	5	3.6	9	1.7
No response	1	0.6	3	1.4	2	1.4	6	1.2
Ownership of the school								
Public	140	83.8	173	82.8	93	66.9	406	78.8
Private-State Assisted	27	16.2	36	17.2	46	33.1	109	21.2
Province								
Ávila	23	13.8	16	7.7	20	14.4	59	11.5
Burgos	18	10.8	23	11.0	20	14.4	61	11.8
León	35	21.0	33	15.8	19	13.7	87	16.9
Palencia	13	7.8	13	6.2	13	9.4	39	7.6
Salamanca	21	12.6	22	10.5	16	11.5	59	11.5
Segovia	6	3.6	25	12.0	15	10.8	46	8.9
Soria	8	4.8	10	4.8	8	5.8	26	5.0
Valladolid	36	21.6	46	22.0	13	9.4	95	18.4
Zamora	7	4.2	21	10.0	15	10.8	43	8.3
Years' experience of teaching								
M	18.83		20.53		17.43		19.14	
SD	9.41		9.98		10.09		9.89	
Number of students in group-class								
M	16.13		17.53		22.76		18.46	
SD	7.47		7.06		7.47		7.76	

Source: Own elaboration.

The Spanish version of the Teacher Efficacy Scale for Writing questionnaire, which was developed by the research team of Dr Steve Graham in 2001, was used. It comprises 15 items: 10 relating to personal efficacy (e.g. "When students' writing performance improves, it is usu-ally because I found better ways of teaching that student") and 5 relating to general efficacy (e.g. "The hours in my class have little influence on students' writing performance compared to the influence of their home environment"). The answer scale was: strongly disagree (1), moder-

ately disagree (2), slightly disagree (3), slightly agree (4), moderately agree (5), and strongly agree (6).

The original Teacher Efficacy Scale for Writing questionnaire (Graham et al., 2001) had a Cronbach's Alpha of .84 for the personal efficacy dimension and .69 for the general efficacy dimension, while the validated Spanish version had Cronbach's alphas of .77 and .73 respectively. The values obtained in this study were .77 for personal efficacy and .75 for general efficacy, which indicates adequate reliability.

— Section 4. Teachers' attitudes towards writing and the teaching of it.

We used a translation of the questionnaire by Brindle et al. (2016). This comprises 7 items (e.g. "I am a good writer", "I like teaching writing"), and uses as its answer scale: strongly disagree (1), moderately disagree (2), slightly disagree (3), slightly agree (4), moderately agree (5), and strongly agree (6).

The analyses by Brindle et al. (2016) showed a single factor with a Cronbach's alpha of .87, a very similar value to the one obtained in this study (.83), indicating adequate reliability of the instrument used.

3.3. Procedure

We carried out the data collection for the study during the second half of the 2017-2018 school year. To do this, we telephoned the management of all of the schools in Castilla y León that provide primary and compulsory secondary education to explain the aim of the study to them and ask them to agree to participate. The centres that agreed to participate received an email explaining the study, a link to access the survey, and instructions on how to complete it. The management of the centres forwarded the email to all of their Spanish language and literature teachers so that any of them who voluntarily decided to participate in the study could complete the questionnaire. One month after contacting all of the schools, we sent a reminder email including the link to the survey again, the instructions on how to complete it, and the deadline for being able to complete it. The link to the online survey was active from January to April.

3.4. Statistical analysis

To analyse the differences between educational levels in the frequency of use of practices for teaching writing and in the teacher's variables analysed, we carried out one-way analysis of variance (ANOVA) with three comparison groups: years 1-3 of primary school, 4-6 of primary school, and 1-4 of secondary school. To control the risk of type I errors, we used the Bonferroni technique, considering that there were statistically significant differences when the p value was lower than .0025 in the case of instructional practices ($p = .05/20$) and when the p value was lower than .013 in the case of the teacher's variables ($p = .05/4$). In cases where we found significant differences, we performed post-hoc analyses using the Tukey HSD technique with the Bonferroni correction and we considered that there were statistically significant differences when the p value

was lower than .017, both in the case of the instructional practices (p = .05/3) and in teacher's variables (p = .05/3). It was not obligatory to respond to all of the items in the survey and so not all of the participants answered all of them. Therefore, we performed the ANOVA analyses on the basis of the responses obtained and so the number of cases (n) for each instructional practice and teacher's variable analysed are stated.

To determine the influence of the teacher's variables analysed on instructional practice, we carried out multiple regression analyses, taking educational level, the levels of and general efficacy, attitudes, and the level of preparation for teaching of writing as predictor variables. Before the analysis, we eliminated the participants who did not reply to any of the items leaving a final subsample of N = 436. In the first phase of the analysis, we introduced the educational level and the four modulator variables of the teacher into the model (model 1). To this end, we made the educational level variable a dummy variable taking years 1-3 of primary school as the reference educational level. In the second phase, we introduced interaction between the educational level and the modulator variables of the teacher into the model (model 2). The variables introduced into this model were centred on the mean.

4. Results

Firstly, we display the results relating to how often teachers report using instructional practices supported by meta-analy-

sis studies for teaching of writing and differences by educational level. Secondly, we show the results of the modulator variables analysed along with their differences by educational level. Finally, we analyse the influence of these modulator variables on the use of the instructional practices.

4.1. Use of effective teaching practices in the teaching of writing

As Table 2 shows, teachers report making infrequent use of these instructional practices independently of educational level. None of the practices analysed were used on a daily basis. The most used, with a frequency ranging from several times a week to once a week, are those relating to the teaching of spelling and grammar. The remaining practices analysed are used between once a week and once a month, except for teaching of writing through new technologies and process focus, which are used between several times a year and once a month.

We found statistically significant differences by educational level in 13 of the 20 instructional practices analysed.

The pairwise comparison analyses showed that the compulsory secondary education teachers reported teaching the following writing dimensions less often than all of the primary teachers: transcription skills (spelling, $p < .001$, $d \geq .48$; handwriting, $p < .001$, $d \geq .62$; and typing, $p \leq .003$, $d \geq .46$), planning strategies ($p \leq .004$, $d \geq .36$) and revision strategies ($p < .001$, $d \geq .43$), and fostering students' creativity ($p \leq .002$, $d \geq .38$).

TABLE 2. Descriptive statistics for use of instructional practices for teaching of writing and differences by educational level.

Practice	TOTAL		1-3 PRIMARY		4-6 PRIMARY		1-4 SECONDARY		F	Partial eta squared
Dimensions	N	M (SD)	n	M (SD)	n	M (SD)	n	M (SD)		
Handwriting	509	5.57 (1.40)	164	5.95 (1.24)	207	5.66 (1.28)	138	4.99 (1.57)	19.57	.07***
Grammar	510	5.18 (1.41)	165	5.14 (1.55)	207	5.28 (1.34)	138	5.09 (1.34)	.84	.003
Planning strategies	506	4.79 (1.59)	165	4.87 (1.61)	206	5.05 (1.46)	135	4.29 (1.64)	10.16	.04***
Revision strategies	505	4.71 (1.76)	164	4.91 (1.87)	205	4.93 (1.62)	136	4.14 (1.74)	10.04	.04***
Vocabulary on different text types	505	4.70 (1.72)	163	4.86 (1.85)	207	4.85 (1.63)	135	4.27 (1.64)	5.82	.023
Different text structure types	504	4.23 (1.52)	161	4.13 (1.66)	207	4.33 (1.41)	136	4.14 (1.74)	.80	.003
Fostering creativity before writing texts	508	4.22 (1.77)	162	4.63 (1.74)	207	4.29 (1.67)	139	3.63 (1.80)	12.74	.05***
Handwriting	504	4.00 (2.36)	163	5.33 (1.98)	204	3.91 (2.29)	137	2.56 (1.99)	64.21	.20***
Observation/emulation of textual models	507	3.84 (1.54)	163	3.57 (1.64)	207	3.83 (1.41)	137	4.18 (1.57)	5.98	.023
Combining phrases	503	3.45 (1.97)	158	3.20 (2.02)	207	3.70 (1.94)	138	3.35 (1.93)	3.20	.013
Typing	508	1.80 (1.39)	164	1.79 (1.33)	205	2.17 (1.63)	139	1.27 (0.82)	18.36	.07***
Supports										
Providing more writing time	510	4.66 (1.53)	163	5.06 (1.51)	208	4.77 (1.44)	139	4.04 (1.50)	18.53	.07***
Setting objectives before writing texts	507	4.60 (1.78)	161	4.89 (1.86)	208	4.72 (1.69)	138	4.10 (1.72)	8.18	.03***
Providing feedback (peer/adult)	503	4.37 (1.83)	162	4.74 (1.92)	207	4.47 (1.69)	134	3.75 (1.76)	11.76	.05***
Collaborative practice	505	3.97 (1.67)	161	4.10 (1.65)	207	4.27 (1.60)	137	3.37 (1.65)	13.12	.05***
Content search/organisation before writing texts	503	3.74 (1.54)	162	3.59 (1.61)	203	4.04 (1.53)	138	3.45 (1.39)	7.32	.03**
Sensory experiences/imaginary situations before writing texts	504	3.74 (1.71)	163	4.24 (1.69)	204	3.79 (1.66)	137	3.08 (1.60)	18.40	.07***
Self-evaluation with specific criteria	505	3.04 (1.73)	164	2.98 (1.90)	205	3.27 (1.66)	136	2.74 (1.56)	4.03	.016
Process focus	509	2.81 (1.33)	162	2.71 (1.44)	208	3.04 (1.29)	139	2.58 (1.20)	5.81	.022
Teaching of writing using ICT	508	2.76 (1.63)	162	2.52 (1.60)	208	3.22 (1.65)	138	2.34 (1.46)	15.56	.06***

* ≤ .0025 ** ≤ .001 *** ≤ .0001
Source: Own elaboration.

Similarly, the compulsory secondary education teachers reported using the following supports for teaching of writing less frequently than the primary teachers: collaborative work on writing texts ($p < .001$, $d \geq .44$), providing students with more time for writing ($p < .001$, $d \geq .50$), setting writing objectives before composing the text ($p \leq .004$, $d \geq .37$), providing students with feedback about their texts ($p \leq .001$, $d \geq .42$), and doing activities relating to sensory experiences or imaginary situations before writing the text ($p < .001$, $d \geq .44$). With regards to doing search activities and organising content before writing texts ($p \leq .014$, $d \geq .29$) and teaching writing through technologies ($p < .001$, $d \geq .43$), the pairwise comparison analyses showed that the compulsory secondary education teachers and teachers from years 1-3 of primary education reported using this type of practice less frequently than those from years 4-6 of primary.

4.2. Teacher's variables modulating the teaching of writing

As Table 3 shows, regardless of their educational level, the teachers analysed display a moderate level of personal efficacy, a low level of general efficacy, good attitudes, and a minimal level of preparation for teaching writing.

We found statistically significant differences by educational level in the level of personal efficacy and the level of preparation.

The pairwise comparison analyses showed that compulsory secondary education teachers reported a lower level of personal efficacy than teachers from years 4-6 of primary ($p = .003$, $d = .37$). These differences were not found with regards to teachers from years 1-3 of primary ($p = .022$).

Similarly, compulsory secondary education teachers reported a lower level of

TABLE 3. Descriptors of the teacher's variables and differences by educational level.

Variable	TOTAL		1-3 PRIMARY		4-6 PRIMARY		1-4 SECONDARY		F	Partial eta squared
	N	M (SD)	n	M (SD)	n	M (SD)	n	M (SD)		
Personal efficacy	507	4.58 (0.59)	164	4.61 (0.60)	207	4.64 (0.53)	136	4.43 (0.63)	5.83	.02*
General efficacy	507	2.61 (0.84)	165	2.62 (0.82)	206	2.64 (0.85)	136	2.56 (0.84)	.39	.002
Attitudes	506	5.01 (0.74)	164	5.10 (0.66)	207	4.96 (0.79)	135	5.0 (0.73)	1.63	.006
Preparation	515	2.43 (0.62)	167	2.51 (0.57)	209	2.51 (0.56)	139	2.20 (0.72)	12.83	.05***

* ≤ .013 ** ≤ .001 *** ≤ .0001
Source: Own elaboration

preparation than all of the primary education teachers ($p < .001$, $d \geq .47$).

4.3. Influence of the teacher's variables on use of effective instructional practices

The results of the regression analysis (Table 4) showed that the teacher's variables analysed together explain 12% of the variance in the use teachers reported of instructional practices for teaching writing. However, only the level of personal efficacy, attitudes, the level of preparation, and the compulsory secondary educational level significantly contributed to the use of these practices, with the contribution of the compulsory secondary educational level being negative. The interaction between educational level and the teacher's variables analysed did not involve an increase in the predicted variance (model 2), suggesting that the influence of these variables is maintained across all of the educational levels analysed.

TABLE 4. Regression analysis taking instructional practices as the predictor variable.

Models	B	Beta	SE	t	p
Model 1					
*4-6 Primary	0.056	.026	0.112	0.496	.620
*Compulsory Secondary	-0.423	-.176	0.125	-3.375	.001
Personal Efficacy	0.183	.100	0.090	2.040	.042
General Efficacy	0.053	.041	0.059	0.900	.369
Attitudes	0.247	.170	0.071	3.481	.001
Training	0.330	.188	0.084	3.929	< .001
Model 2					
4-6 Primary	0.071	.033	0.115	0.622	.535
Compulsory Secondary	-0.421	-.175	0.129	-3.271	.001
Personal efficacy	0.202	.110	0.147	1.376	.170
General efficacy	0.107	.081	0.109	0.977	.329
Attitudes	0.139	.096	0.138	1.002	.317
Preparation	0.408	.233	0.167	2.448	.015
4-6 Primary × Personal efficacy	-0.209	-.068	0.219	-0.954	.341
4-6 Primary × General efficacy	-0.089	-.044	0.144	-0.619	.536
4-6 Primary × Attitudes	0.212	.101	0.176	1.209	.227
4-6 Primary × Preparation	-0.069	-.024	0.215	-0.323	.747
Compulsory Secondary × Personal efficacy	0.127	.039	0.222	0.574	.566
Compulsory Secondary × General efficacy	-0.095	-.038	0.156	-0.606	.545
Compulsory secondary × Attitudes	0.081	.029	0.196	0.413	.680
Compulsory secondary × Preparation	-0.144	-.051	0.220	-0.652	.515

* The educational level variable was made a dummy variable taking years 1-3 of primary school as the reference educational level.
Source: Own elaboration.

5. Conclusions

Based on the results of this study, we can draw the following conclusions. Firstly, compulsory education teachers in Spain report little use in teaching of writing of instructional practices supported by meta-analysis studies; this result is consistent with what previous studies in international contexts have found (see Brindle et al., 2016; Gilbert &

Graham, 2010; Graham et al., 2014; Kiuhara et al., 2009). In turn, when comparing educational stages we found that teachers in compulsory secondary education seem to make least use of this type of instructional practices for writing. This could reflect a change in how teachers conceptualise writing, as it changes from being regarded as an object of study in primary education to a tool for use in studying in secondary education (Fidalgo et al., 2014). However, many official reports have underlined the high number of students in secondary education who have still not achieved adequate written competence (Ministerio de Educación, 2011). Ultimately, although scientific knowledge has provided a solid scientific basis for effective instructional practices for improving students' written competence in the different educational stages, as corroborated in the review of meta-analyses in the present study, the results obtained appear to suggest a limited transference of this scientific knowledge to the educational sphere. One possible solution to this shortcoming in transference could be linked to the promotion of professional development programmes for teachers regarding instruction in writing that not only provide better knowledge of these instructional practices (Koster et al., 2017), but which also enable teachers to achieve a command of them that enables practical application of them and their adaptation to the specific needs and characteristics of class groups autonomously and independently; a key aspect for their transfer to the school context (Finlayson & McCrudden, 2020).

On the other hand, of all of the instructional practices analysed, the ones teachers report using most frequently are generally those relating to command of low cognitive level writing processes, in line with what is reported in previous studies in other educational settings (Cutler & Graham, 2008; De Smedt et al., 2016; Gilbert & Graham, 2010). This could have a negative impact on the written competence of students in Spain given that the scientific evidence suggests that acquiring a command of written competence not only requires automation of low cognitive level processes, but also the attainment of a self-regulated command of high cognitive level processes, such as planning and revising texts (Berninger & Winn, 2006; Salvador Mata & García Guzmán, 2009). The greater emphasis teachers give to low cognitive level processes in teaching of writing could explain the limitations of students' metacognitive knowledge in Spain, which is mainly linked to the mechanical processes of writing (García & Fidalgo, 2003), or the limited and ineffective use students make of cognitive and self-regulation strategies in their writing process (López et al., 2019; Fidalgo et al., 2014). Given this, there appears to be a vital need for teachers to place more emphasis on the high cognitive level processes involved in textual composition when teaching writing, both in primary education and compulsory secondary education. Accordingly, of all of the instructional focuses centred on improving students' textual composition, strategic and self-regulated instruction is the instructional focus that the different meta-analyses have corroborated as being most effective for

improving students' written competence at different educational stages (Fidalgo et al., 2008; Torrance et al., 2015), including in the initial years of primary education when automation of low cognitive level processes has still not been achieved (Arrimada et al., 2019). Furthermore, there are empirical reviews that demonstrate the efficacy of this instructional focus on students' written performance, including when the instruction is implemented by the teacher, although, in this case it is necessary to provide prior preparation and external support before and during its implementation (Finlayson & McCrudden, 2020); hence the importance of fostering the application of professional development programmes for teachers.

Moreover, in relation to the analysis of teachers' modulating variables, we can draw the following conclusions. Firstly, in line with previous studies, the personal efficacy dimension and attitudes towards writing and teaching of it have a positive relationship with effective instructional practices for teaching of writing (Brindle, et al., 2016; Gilbert & Graham, 2010; Graham et al., 2014), a relationship we also observed in the secondary education stage. For its part, the influence of teachers' perceived level of preparation for teaching of writing in their instructional practice extended to all of the educational levels analysed, something that helps clarify the influence of this variable throughout both primary and secondary education. Similarly, the comparative analysis of the two educational stages in this study makes it possible to corroborate that compulsory secondary education teachers display lower levels of personal efficacy and preparation for teaching of writing compared with teachers from primary education.

Given the important effect these teacher's variables have on the use of effective instructional practices for teaching of writing throughout compulsory education, and consequently, on the students' writing performance, it is necessary to consider them both when analysing teaching practice for teaching of writing and in the future design of professional development programmes for teachers. If teachers display a high level of personal efficacy, it is more likely that they will normally implement this type of instructional practice in their group-class since belief in self-efficacy shapes an individual's performance, effort, and persistence when faced with this task (Zimmerman, 2000). This also happens in relation to attitudes towards writing and the teaching of it since if teachers regard writing skills as important, and so value teaching of them, it is to be expected that they will consider and apply effective new practices to teach students and foster their writing performance (Brindle et al., 2016). In this sense, the moderate level of personal efficacy of teachers in Spain combined with the positive attitude they display towards writing and teaching of it would, for its part, favour the inclusion of these instructional practices in their ordinary practice, with a consequent expected positive effect on students' writing performance. However, as well as a good predisposition and a high level of efficacy for teaching of writing, teachers must also have a broad

knowledge of and preparation in the use and implementation of these instructional practices (Graham & Harris, 2018). On this line, the low level of preparation reported by the teachers analysed in this study is worrying.

Given all of this, we note the need to include professional preparation regarding the implementation of this type of empirically validated instructional practices, not just, as has been suggested, in teachers' ongoing professional development programmes but also in university syllabuses with special attention to secondary teaching; this would partially help cover some of the gaps in professional preparation observed in different school subjects, particularly in secondary teaching master's programmes (Jover, 2015; Martín Vegas, 2015; Santos Rego & Lorenzo Moledo, 2015).

Finally, before ending we should note some areas for consideration in the present study. A first one relates to the fact that the study sample was limited to a single Spanish Autonomous Region, which could limit the generalisability of the results. However, this seems unlikely for several reasons. The results obtained in Spain fit what is stated in previous studies carried out in other countries. Furthermore, in Spain, at a legislative level, there are minimum teaching requirements regarding objectives, competences, content, standards and evaluable learning outcomes, and evaluation criteria that must be fulfilled in each educational stage in all autonomous regions (Primary Education

Royal Decree 126/2014, of 28 February; Compulsory Secondary Education and Baccalaureate Royal Decree 1105/2014, of 26 December). Similarly, an exploratory analysis of the legislative measures that implement the general curriculum in different autonomous regions suggests that the treatment does not differ by region. A second matter to take into account in this study concerns the type of sampling used. The fact the final study sample comprised teachers who voluntarily chose to participate could result in limitations concerning representativeness, as it could be that the teachers who participated are ones who have a high motivation towards teaching of writing. Nonetheless, the results provided in this sense relating to their teaching self-efficacy or their attitudes towards writing do not appear to support this explanation. Another aspect of the present study to consider relates to the nature of the survey design used and the fact that what was analysed was not the teachers' actual practice in the teaching of writing but what they say they do in their practice. Although the study represents a first step in the analysis of the teaching of writing in Spain, we suggest as a future line of research carrying out complementary observational studies to make it possible to go beyond frequency of use and analyse how teachers implement these instructional practices, considering, in turn, the influence of the social context in which teaching takes place and the interactions and dynamics in class.

ANNEXE 1. Review of meta-analysis studies of the educational area of writing.

Practice	Graham & Harris, 2018		Graham et al., 2015		Graham et al., 2012		Graham & Perin, 2007		Koster et al., 2015	
	Years	ES	Years	ES	Years	ES	Years	ES	Years	ES
Dimensions										
Instruction in planning and review strategies	2-10	1.26	2-8	1.00	2-6	1.02	4-10	0.70	4-6	0.96
Instruction in vocabulary about different text types	3-8	0.78	3-8	0.78						
Fostering creativity before writing texts	3-6	0.76			3-6	0.70				
Instruction in transcription skills: handwriting, spelling, and typing	1-3	0.55	1-3	0.55	1-3	0.55				
Instruction in combining phrases	4-9	0.50	4-7	0.56			4-11	0.50		
Instruction in different text structure types	2-10	0.44	2-6	0.41	2-6	0.59	4-10	---	4-6	0.76
Observation/emulation of examples of text models	3-12	0.30	3-8	0.40			4-12	0.25		
Instruction in grammar	3-11	-0.17			3-6	-0.41	4-11	-0.34	4-6	-0.37
Supports										
Setting objectives before writing texts	4-8	0.80	4-8	0.80	4-6	0.76	4-8	0.70	4-6	2.03
Providing feedback to students about their texts (adult/peer)	2-6/	0.87/ 0.77			2.º-6.º 2.º-6.º	0.80/ 0.37	5.º-12.º	---	4.º-6.º	0.88
Collaborative practice in writing texts	2-12	0.74	2-8	0.66	2-6	0.89	4-12	0.75	4-6	0.59
Self-evaluation of texts based on specific criteria	2-12	0.51	2-6	0.54					4-6	0.43
Content search/organisation activities before writing texts	2-9	0.48	1-8	0.47	2-6	0.54	4-9	0.32	4-6	0.13
Teaching of writing through ICT	1-12	0.44			1-6	0.47	4-12	0.55		
Activities relating to sensory experiences/imaginary situations before writing texts	3-12	0.37					7-12	0.32		
Providing students with more writing time	2-8	0.24	2-8	0.24	2-6	0.30	4-8	---		
Process focus	1-6 6-12	0.48 0.25	1-8	0.37			4-6 7-12	0.27 -0.05	4º-6º	-0.25

Source: Own elaboration.

Notes

[1] The questionnaire included a fifth section regarding teachers' theoretical orientations in the teaching of writing using the Writing Orientation Scale questionnaire developed by Graham et al. (2002). However, the Cronbach's alpha obtained for this was very low (alpha < .60). We performed factorial analyses, but the results obtained did not fit the original structure of the scale, and so we concluded that the scale did not work in our sample and we decided to eliminate these data from the analysis.

References

Arrimada, M., Torrance, M., & Fidalgo, R. (2018). Supporting first-grade writers who fail to learn: Multiple single-case evaluation of a Response to Intervention approach. *Reading and Writing, 31* (4), 865-891. https://doi.org/10.1007/s11145-018-9817-x

Arrimada, M., Torrance, M., & Fidalgo, R. (2019). Effects of teaching planning strategies to first-grade writers. *British Journal of Educational Psychology, 89* (4),670-688. https://doi.org/10.1111/bjep.12251

Berninger, V. W., & Winn, W. D. (2006). Implications of advancements in brain research and technology for writing development, writing instruction, and educational evolution. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 96-114). Guilford Press.

Brindle, M., Graham, S., Harris, K. R., & Hebert, M. (2016). Third and fourth grade teacher`s classroom practices in writing: A national survey. *Reading and Writing, 29* (5), 929-954. https://doi.org/10.1007/s11145-015-9604-x

Coker, D. L., Farley-Ripple, E., Jackson, A. F., Wen, H., MacArthur, C. A., & Jennings, A. S. (2016). Writing instruction in first grade: An observational study. *Reading and Writing, 29* (5), 793-832. https://doi.org/10.1007/s11145-015-9596-6

Cutler, L., & Graham, S. (2008). Primary grade writing instruction: A national survey. *Journal of Educational Psychology, 100* (4), 907-919. https://doi.org/10.1037/a0012656

De Smedt, F., Van Keer, H., & Merchie, E. (2016). Student, teacher and class-level correlates of Flemish late elementary school children`s writing performance. *Reading and Writing, 29* (5), 833-868. https://doi.org/10.1007/s11145-015-9590-z

Dockrell, J. E., Marshall, C. R., & Wyse, D. (2015). Teachers´ reported practices for teaching writing in England. *Reading and Writing, 29* (3), 409-434. https://doi.org/10.1007/s11145-015-9605-9

European Union (2006, December 18). *Recommendation of the European Parliament and the Council of 18th December 2006 on key competencies for lifelong learning.* http://data.europa.eu/eli/reco/2006/962/oj

Fidalgo, R., Torrance, M., Arias-Gundín, O., & Martínez-Cocó, B. (2014). Comparison of reading-writing patterns and performance of students with and without reading difficulties. *Psicothema, 26* (4), 442-448. https://doi.org/10.7334/psicothema2014.23

Fidalgo, R., Torrance, M., & García, J.-N. (2008). The long-term effects of strategy-focussed writing instruction for grade sixth students. *Contemporary Educational Psychology, 33* (4), 672-693. https://doi.org/10.1016/j.cedpsych.2007.09.001

Finlayson, K., & McCrudden, M. T. (2020). Teacher-implemented writing instruction for elementary students: A literature review. *Reading & Writing Quarterly, 36* (1), 1-18. https://doi.org/10.1080/10573569.2019.1604278

García, J.-N., & Fidalgo, R. (2003). Diferencias en la conciencia de los procesos psicológicos de la escritura: mecánicos frente a sustantivos y otros [Differences in awareness of writing cognitive processes: substantive vs., mechanical and other]. *Psicothema, 15* (1), 41-48. http://www.uniovie.net/reunido/index.php/PST/article/view/8135

Gilbert, J., & Graham, S. (2010). Teaching writing to elementary´ students in grades 4-6: A national survey. *The Elementary School Journal, 110* (4), 494-518. https://doi.org/10.1086/651193

Graham, S., Capizzi, A., Harris, K. R., Hebert, M., & Morphy, P. (2014). Teaching writing to middle school students: A national sur-

vey. *Reading and Writing*, *27* (6), 1015-1042. https://doi.org/10.1007/s11145-013-9495-7

Graham, S., & Harris, K. R. (2018). Evidence-based writing practices: A meta-analysis of existing meta-analysis. In R. Fidalgo, K. R. Harris, & M. Braaksma (Eds.), *Design principles for teaching effective writing: theoretical and empirical grounded principles* (pp. 13-37). Brill Editions.

Graham, S., Harris, K. R., Fink, B., & MacArthur, C. A. (2001). Teacher efficacy in writing: A construct validation with primary grade teachers. *Scientific Studies of Reading*, *5* (2), 177-202. https://doi.org/10.1207/S1532799Xssr0502_3

Graham, S., Harris, K. R., MacArthur, C., & Fink, B. (2002). Primary grade teachers' theoretical orientations concerning writing instruction: Construct validation and a nationwide survey. *Contemporary Educational Psychology*, *27* (2), 147-166. https://doi.org/10.1006/ceps.2001.1085

Graham, S., Harris, K. R., & Santagelo, T. (2015). Research-based writing practices and the common core: Meta-analysis and meta-synthesis. *The Elementary School Journal*, *115* (4), 498-522. https://doi.org/10.1086/681964

Graham, S., McKeown, D., Kiuhara, S., & Harris, K. R. (2012). A meta-analysis of writing instruction for students in the elementary grades. *Journal of Educational Psychology*, *104* (4), 879-896. https://doi.org/10.1037/a0029185

Graham, S., & Perin, D. (2007). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology*, *99* (3), 445-476. https://doi.org/10.1037/0022-0663.99.3.445

Jover, G. (2015). Presentación: la formación del profesorado de educación secundaria. Revisión y propuestas de future [Presentation: Secondary Education Teachers' Training. Review and proposals for the future]. **revista española de pedagogía**, *73* (261), 219-223. https://bit.ly/3rLGclr

Kiuhara, S. A., Graham, S., & Hawken, L. S. (2009). Teaching writing to high school students: A national survey. *Journal of Educa-*

tional Psychology, 101 (1), 136-160. https://doi.org/10.1037/a0013097

Koster, M., Bouwer, R., & van den Bergh, H. (2017). Professional development of teachers in the implementation of a strategy-focused writing intervention program for elementary students. *Contemporary Educational Psychology, 49*, 1-20. https://doi.org/10.1016/j.cedpsych.2016.10.002

Koster, M., Tribushinina, E., de Jong, P. F., & van den Bergh, H. (2015). Teaching children to write: A meta-analysis of writing intervention research. *Journal of Writing Research*, *7* (2), 249-274. https://doi.org/10.17239/jowr-2015.07.02.2

Kuhlemeier, H., Van Til, A., Hemker, B., de Klijn, W., & Feenstra, H. (2013). *Balans van de schrijfvaardigheid in het basis- en special basisonderwijs 2 [Second evaluation of writing skills in primary education and special education].* Central Institute for Test Development in Antwerp. https://bit.ly/2On0Rxv

Lipsey, M. W., & Wilson, D. B. (2001). *Practical meta-analysis*. Sage Publications.

López, P, Torrance, M., & Fidalgo, R. (2019). The online management of writing processes and their contribution to text quality in upper-primary students. *Psicothema, 31* (3), 311-318. https://doi.org/10.7334/psicothema2018.326

Martin Vegas, R. A. (2015). La didáctica de la lengua y la literatura españolas en el máster en formación del profesorado de educación secundaria. Revisión y renovación [The didactics of Spanish language and literature in the master`s degree in secondary school teaching. Review and renovation]. **revista española de pedagogía**, *73* (261), 365-379. https://bit.ly/2N8Xh9M

Ministerio de Educación (2010). *Evaluación general de diagnóstico de 2009. Educación primaria. Cuarto curso. Informe de resultados [General diagnostic assessment 2009. Primary education. Fourth year. Report of results].* https://bit.ly/3aVce7u

Ministerio de Educación (2011). *Evaluación general de diagnóstico de 2010. Educación secundaria obligatoria. Segundo curso. Informe de resultados [General diagnostic as-*

sessment 2010. Compulsory secondary education. Second year. Report of results]. https://bit.ly/36YXfZh

National Center for Education Statistics (2012). *The nation's report card: writing 2011*. https://nces.ed.gov/nationsreportcard/writing/

Office for Standards in Education. (2005). *The national literacy and numeracy strategies and the primary curriculum*. https://dera.ioe.ac.uk//5266/

Pacheco, D. I., García, J.-N., & Díez, C. (2009). Autoeficacia, enfoque y papel de la práctica de los maestros en la enseñanza de la escritura [Self-efficacy, approach, and teacher's practice in the writing teaching]. *European Journal of Education and Psychology, 2* (1), 5-23. https://doi.org/10.30552/ejep.v2i1.1

Primary Education Royal Decree 126/2014, of 28 February. *Spanish Official Gazette, 52,* of 1 March 2014, pages 19349 to 19420. https://www.boe.es/eli/es/rd/2014/02/28/126

Compulsory Secondary Education and Baccalaureate Royal Decree 1105/2014, of 26 December. *Spanish Official Gazette, 3,* of 3 January 2015, pages 169 to 546.

Rietdijk, S., van Weijen, D., Janssen, T., van den Bergh, H., & Rijlaarsdam, G. (2018). Teaching writing in primary education: Classroom practice, time, teachers' beliefs and skills. *Journal of Educational Psychology, 110* (5), 640-663. https://doi.org/10.1037/edu0000237

Salvador Mata, F., & García Guzmán, A. (2009). El proceso de revisión en la composición escrita de alumnos de educación primaria [The revision process in written composition of elementary school students]. **revista española de pedagogía**, *67* (242), 61-76. https://bit.ly/2NbOSCs

Santos Rego, M. A., & Lorenzo Moledo, M. (2015). La formación del profesorado de educación secundaria: pensando en la reconstrucción del proyecto Universitario [Training of secondary education teachers: thinking about the reconstruction of the university project]. **revista española de pedagogía**, *73* (261), 263-281. https://bit.ly/3rJB5lJ

Torrance, M., Fidalgo, R., & Robledo, P. (2015). Do sixth-grade writers need process strategies? *British Journal of Educational Psychology, 85* (1), 91-112. https://doi.org/10.1111/bjep.12065

Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13-39). Academic Press.

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Self-regulated learning and gamification in higher education: a proposal for an analysis model

Aprendizaje autorregulado y gamificación en educación superior: propuesta de un modelo de análisis

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Abstract:

The aim of this paper is to propose a conceptual model that links the influence of a gamified context to aspects relating to self-regulation in learning. Although extensive literature has been written on the subject of *self-regulated learning*, there has been little exploration of the environment and works that consider gamification as an effective tool for creating a favourable teaching-learning context to stimulate self-regulation are non-existent. The combination of these two lines, which until now have been studied in isolation, might encourage the teaching community to direct its efforts towards the design of gamified systems within the classroom to instruct and encourage self-regulation. The proposed model presents the key variables to consider, along with a solid theoretical justification for the proposals made.

Keywords: self-regulated learning, gamification, educational environment, learning method.

Resumen:

El objetivo del presente trabajo es proponer un modelo conceptual que relacione la influencia de un contexto gamificado sobre los aspectos relacionados con la autorregulación en el aprendizaje. Si bien la literatura sobre el tópico *aprendizaje autorregulado* es extensa, el entorno ha sido poco explorado e inexistentes los trabajos que consideren la

gamificación como herramienta eficaz para generar un contexto de enseñanza-aprendizaje favorable para estimular la autorregulación. La unión de las dos líneas de investigación estudiadas hasta el momento de forma aislada puede incentivar a la comunidad docente a orientar sus esfuerzos hacia el diseño de sistemas gamificados dentro del aula para instruir y fomentar la autorregulación. El modelo propuesto presenta las variables clave que considerar, con una justificación teórica sólida para las proposiciones planteadas.

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1. Introduction

In recent years academic literature has reflected teachers' interest in adapting their work to the requirements of the European Higher Education Area by implementing active educational methodologies that make it possible to involve students and ultimately guide them towards self-regulated learning (Rosário et al., 2007; Martín-Peña et al., 2011; Fernández et al., 2013).

In higher education self-regulated learning has inspired particular interest. This is fundamentally because students who learn to regulate their learning also develop the capacity to plan processes and are capable of detecting anomalies in performance, correcting them, self-assessing their results (Daniela et al., 2017), and applying their knowledge to new contexts (Díaz Mujica et al., 2017).

Zimmerman and Schunk (1989), who are regarded as pioneers in the concept of self-regulated learning, state that it is an active process in which students set the objectives that guide their learning. Their contribution focuses on dispositional, cognitive, and metacognitive aspects (Zambrano & Villalobos, 2013). More recent studies support the idea of integrating motivational variables with traditional cognitive ones to provide a full overview of the learning process, arguing that cognitive processes tend to start with motivated students (Pintrich & García, 1993; Torrano & González, 2004). Hence the importance the motivational component has acquired in relation to self-regulated learning.

More recent studies in this field note the importance of considering context as a component in addition to cognitive and motivational ones to explain self-regulated learning processes (Pintrich, 2000), arguing in this case that context influences students' active engagement (Montero & de Dios, 2004) and their motivation (Pintrich, 2000). Accordingly, they share the argument advocated by García Bacete and Doménech Betoret (1997, p. 33) that "students' motivation depends on how the learning situation is presented."

There has been an increase in academic literature considering self-regulation

in higher education, in particular works focussing on studying the processes involved in this phenomenon, the relationship between these processes, and their effect on academic performance (Torrano et al., 2017). However, there has been little exploration of the influence of context on self-regulated learning, despite the gap experts have identified in regards to works that highlight teaching/learning contexts that are effective in orientating students towards constructing their own knowledge (Valle Arias et al., 2010).

Consequently, gamification — the use of game elements in non-game contexts (Deterding et al., 2011) — might be an effective teaching strategy for achieving the required active, positive, and participatory context, thanks to its impact on the motivational (Oliva, 2016), cognitive (Domínguez et al., 2013), and behavioural areas (Werbach & Hunter, 2012).

Therefore, we believe that gamification can guide students towards self-regulation of their learning, taking into consideration the fact that one of the characteristics of this type of learning is that students are able to accomplish a set of adaptative attitudes and beliefs that lead them to become engaged in and persevere with academic tasks (Valle Arias et al., 2010).

Although there is extensive literature on gamification in teaching, we have not found any works that suggest this tool as a methodology that is capable of generating the necessary motivating context so that students can develop the charac-teristics typical of self-regulation. This raises the following question: can implementing a gamified system create a teaching-learning context that is favourable for incentivising this type of learning? Answering this question is part of the aim of this study.

Accordingly, the aim of this work is to suggest a conceptual analysis model that tests how appropriate it is to consider gamification as a contextual variable for incentivising the process of academic self-regulation. It offers a proposal that shows the synergies offered by combining two lines of research that until now have been studied in isolation and it also considers variables that affect self-regulation (cognitive, motivational, and behavioural) as being dependent on the context variable.

In addition, the approach developed in this work can help the teaching community consider the task of creating gamified environments in the classroom as an effective option for encouraging self-regulation. Therefore, it presents teachers with the challenge of creating an active, positive, and participative environment (Boekaerts & Cascallar, 2006; Martín, 2012) that enables students to find the best way of learning, in line with the idea shared with García Bacete and Doménech Betoret (1997, p. 34): "It is not a matter of motivating students but of creating the appropriate context to inspire their motivation."

This work is structured as follows: firstly, the theoretical foundations that

establish the importance of the contextual component in self-regulation and the potential of gamification as a tool to take into account in instruction methods are set out. Based on a literature review, we propose a conceptual analytic model that displays the relationship between a gamified context and the cognitive, motivational, and behavioural areas involved in the self-regulation process. It ends with conclusions and suggested future lines of research.

2. Self-regulated learning: the importance of the contextual component

Self-regulation is an active process in which students define their learning objectives and attempt to discover, control, and regulate their cognition, motivations, and behaviour to achieve these objectives (Valle Arias et al., 2010; Rosário et al., 2012).

In this sense, we can state in general terms that learners combine the basic characteristics of self-regulation when: they participate actively in their learning process (Núñez Pérez et al., 2006a); they are able to control it (Núñez Pérez et al., 2006b); they are motivated to do so (Pintrich, 2004) and display adaptive attitudes and beliefs that lead them to engage in and persist with academic tasks (Valle Arias et al., 2010).

This involves students becoming key actors in their learning processes (Cabero, 2013) and to do this, it is vital that they understand how to do this, are able to do

it, and want to do it. Knowing how to do it is conditioned by instruction; being able to do it is shaped by the capacities, knowledge, strategies, and skills necessary for achieving objectives, in other words, the cognitive component; and wanting to do it relates to the motivational component, in other words, having sufficient disposition, intention, and motivation (Valle Arias et al., 1997).

Cognitive researchers' interest in studying academic motivation marks an important change in conceptions of self-regulated learning and thought (Zulma Lanz, 2006). The characteristics of a task, the structure of work in class, teaching methods, the teacher's behaviour, and the type of interactions established between teachers and students (Montero & de Dios, 2004) play a crucial role in this type of learning, as does the context in which the activity takes place.

It is therefore apparent that even though the cognitive component has been the most studied variable in self-regulated learning processes (Suárez & Fernández, 2011), the current focus tends to show the importance of considering not only cognitive aspects but also motivational (Lamas Rojas, 2008) and contextual components (Pintrich, 2004).

Over the last two decades, various theories and models have been proposed that have set out to identify and describe the processes involved in self-regulation of learning, with the contributions of Pintrich and Zimmerman being recognised as the most influential (Torrano et al., 2017).

In particular, the conceptual model proposed by Pintrich (2000) is still the foundation on which much of the subsequent theoretical edifice is built as it was first to consider the contextual component as an area involved in self-regulation (Torrano & González, 2004).

Pintrich (2000) identifies four phases learners pass through in the development of self-regulation (planning, self-observation, control/regulation, and evaluation) identifying which actions the learner performs in each of them depending on the component or area involved in self-regulated learning, that is to say, in the cognitive, motivational, behavioural, and contextual areas.

Accordingly, in the cognitive area, the processes involved are goal setting, metacognitive knowledge, self-observation of cognition, and the development of cognitive and metacognitive strategies; the motivational area covers the concept of self-efficacy, value of the task, personal interest, emotions, and self-observation of motivation; the behavioural area comprises activities relating to planning of time and effort and self-observation of it; and the contextual component comprises the student's perception with regards to the task, context, evaluation and process of self-observation.

Ultimately, this model offers an analysis framework in which it is possible to study the different processes involved in self-regulation (Torrano & González, 2004), explain the relationships established between these components, and

link them directly with learning (Torrano et al., 2017).

Considering the contextual component, learning context is one of the elements that specialist literature regards as fundamental in knowledge creation (Peñalosa Castro & Castañeda Figueiras, 2008), especially when students' behaviour and decision making are based on their surroundings (Winne, 2004). Therefore, although this component was not considered in the first approaches to self-regulation, there is a consensus surrounding its importance in the self-regulation.

Over the last decade, work has been done studying the influence of context on some of the aspects relating to self-regulation, such as autonomy, perceived competence, and attitude towards a subject (Gascón et al., 2010), on how the blended setting influences motivation and the use of self-regulated learning strategies (González-Gascón & Palacios, 2011), and on how the learning context a group of teachers creates influences motivation, strategies, and promotion of personalisation (Daura, 2013).

Regarding Daura's work (2013), the results of her research are interesting as she concludes that most of the actions teachers put into practice spontaneously implemented certain strategies and in no case did so intentionally, underlining the importance of the self-regulation process being a deliberate act that requires manipulation of the surroundings, adapting them to the needs of this type of learning.

On similar lines, Ley and Young (2001, p. 94) suggest a series of principles teachers can use as a reference for fostering self-regulated learning through instruction, such as:

1. Guiding students in preparing and structuring effective learning environments.

2. Organising instruction and activities to facilitate the use of cognitive and metacognitive strategies.

3. Setting learning goals and generating feedback to offer students opportunities in their cognitive development.

4. Providing students with continuous evaluation information and giving them the opportunity to self-evaluate their own learning.

These authors' recommendations represent a challenge for the educational community in its search for methodologies that make it possible to move learners closer to regulation of their own learning, while at the same time offering particularly interesting pointers for anyone interested in pursuing this line of research in greater depth.

Nonetheless, given the present study's focus, we feel it is advisable to consider the first principle relating to the learning environment while trying to establish what characteristics a learning setting should have if it is to be favourable for ensuring that students regulate their learning.

Taking as a reference point what Bransford et al. (2000) establish when they suggest four perspectives for designing effective learning settings is of interest:

• *Student centred*: They must help students make the appropriate connections between their prior knowledge and their current academic tasks.

• *Knowledge centred*: It is not enough to teach general problem-solving and thinking skills; the capacity to think and solve problems requires well-organised knowledge and this is only accessible in appropriate contexts.

• *Assessment centred*: It is necessary to provide students with assessments that reflect the learning and achievement of objectives defined in the different environments.

• *Community centred*: this involves the degree to which a sense of community is promoted. This is a matter of promoting interaction between students and between student and teacher.

In addition, it is interesting to note the generalised consensus in academic literature that self-regulation is not an innate competence in students (Zambrano & Villalobos, 2013) and so can be taught and fostered at any level.

At the start of the century, Pintrich (2000) already insisted on the need to teach students to self-regulate. This is why interest in knowing how the capacity for self-regulation can be boosted through

instruction has developed (Zambrano & Villalobos, 2013).

Following the classification provided by Torrano et al. (2017), the teaching methods used in recent decades to incentivise self-regulation have undergone the same evolution as the concept itself. They have changed from a form of education focussing on the strictly cognitive with direct teaching of learning and modelling strategies, and now also consider motivational and contextual aspects with guided and autonomous practice, self-observation, and self-reflexive practice, with these last two aspects being regarded as the current teaching methods.

However, these methods all require deliberate intervention in the learning context. Therefore, we believe that gamification can provide a methodologically attractive and effective option for affecting cognitive, motivational, and behavioural processes, as it creates a context focussed on the student, knowledge, assessment, and sense of community, as Bransford et al. noted (2000).

3. Gamification a contextual variable: justification and suitability

Gamification in education is "a process to engage people, motivate action, promote learning, and solve problems" (Kapp, 2012, p. 219). It is presented as a pedagogical innovation that can increase engagement, motivation, and learning (Prieto, 2020) through the use of strategies typical of games (Oliva, 2016), taking advantage of the motivating context games offer to appeal to students and ensure they actively engage in the learning process (González Gascony & Mora Carreño, 2015; Rubio, 2014).

Although the phenomenon of gamification did not originate in the field of education, it is in education that it has inspired the most interest (Seaborn & Fels, 2015; Silva et al., 2019) thanks to its impact on learning (Li et al., 2012; Burkey et al., 2013; Dicheva et al., 2015; Seaborn & Fels, 2015), behaviour (Werbach & Hunter, 2012), and motivation (Oliva, 2016; Díaz, 2017; Navarro, 2017; Melo-Solarte & Díaz, 2018; Suelves et al., 2018; Zatarain, 2018, among others).

In the specific case of higher education, there has been a notable increase in academic works that demonstrate the development and application of gamification techniques inside and outside the classroom (Cortizo Pérez et al., 2011; Domínguez et al., 2013; Caponetto et al., 2014; Moreira & González, 2015; Ocampo, 2016; Oliva, 2016; Baldeón et al., 2017; Fernández-Zamora & Arias-Aranda, 2017; Rodríguez, 2018). These works are fundamentally interested in studying its impact on academic performance and motivation.

However, few works propose gamification as an effective tool for boosting self-regulation, despite its recognised impact on cognitive (Baldeón et al., 2017), motivational (Oliva, 2016), and behavioural elements (Werbach & Hunter, 2012).

It is known that gamification when correctly implemented results in changes in users' behaviour (Werbach & Hunter, 2012), thanks to the implicit benefits of the games.

Games offer the possibility for students to develop their cognitive skills (Navarro, 2017), improve their problem-solving ability (Higgins et al., 2003), foster learning in the motivational and social domain (Baldeón et al., 2017; Domínguez et al., 2013), and increase concentration, effort, comprehension, analysis, planning, and obtaining set learning outcomes (Arnold, 2014; López, 2014).

Nevertheless, although the essence of gamified systems lies in the use of elements characteristic of games, they are not games and their aims should not be entertainment (Seaborn & Fels, 2015).

Listing all of the steps to follow when developing a gamified system goes beyond the scope of this study. However, we believe it is important to underline that the creation process involves a detailed, rigorous, and perfectly cohesive analysis of each and every one of the stages that comprise it (García et al., 2019).

Gamification uses rules, challenges, points, or rewards, among other aspects. These take advantage of the innate desire of all individuals for status and achievement, thus promoting active participation, while fostering positive behavioural change (Prieto, 2020).

In this way, according to Oliva (2016), the advantages gamification offers students can be summarised as follows:

– It seeks to recognise academic effort (through rewards).

– It helps students identify their improvements and progress easily (thanks to the leaderboard).

– It helps students improve their performance (through challenges).

– It orientates them in comprehension of more complex content (thanks to continuous feedback).

Ultimately, it is a matter of internalising the fact that for students to feel motivated to learn, they must perceive the utility of learning, something closely linked with the learning environment (García Bacete & Domènech Betoret, 1997).

4. Analysis model proposal

Based on the above, the intention of the analysis model proposed in this work revolves around the relationship and impact of a gamified setting on cognitive, motivational, and behavioural aspects, and ultimately on self-regulated learning.

The variables associated with the gamified context and self-regulated learning have been defined on the basis of existing theoretical foundations, with the objective of contrasting the proposed model for the

benefit of the teaching community in future research.

Accordingly, we have identified three variables for the "gamified context" construct:

1. *Characteristics of the task*. We have followed the approach defined by Vermunt (1996) in regards to the types of learning activities. In the case of the present study, we have decided to consider only two: cognitive processing activities and affective processing activities.

2. *Elements*. The most influential elements in gamified systems, based on what is established in the literature review carried out by Seaborn and Fels (2015), include points, rewards, feedback, and leaderboards.

3. *Learning Climate*. Depending on the degree of autonomy students achieve, following Matos-Fernández (2009) under the Learning Climate Questionnaire developed by Williams and Deci (1996).

With regards to "self-regulated learning", we have considered three variables: the cognitive component, the motivational component and the behavioural component identified by Pintrich (2000), as these are recognised in the literature as a model to follow to explain the self-regulation process (Torrano et al., 2017).

Nonetheless, to determine the dimensions associated with each of the variables, we have used and adapted the proposal made by Paz (2018) based on the approach developed by Lindner et al. (1996), thanks to its recognised validity for measuring students' degree of self-regulation. Accordingly, it is structured as follows:

1. *Cognitive*. Referring to automatic or habitual processes:

   – Attention.
   – Information storage and retrieval.
   – Task execution.

2. *Motivational*. Comprising beliefs and questions of personal motivation:

   – Attributions.
   – Goal orientation.
   – Value of the task.

3. *Behavioural*. Relating to behavioural aspects:

   – Seeking help.
   – Time management.
   – Task management.

Graph 1 presents the proposed theoretical model that relates a gamified setting to self-regulated learning.

Autonomy is part of one of the basic needs in the Self-Determination Theory developed by Deci and Ryan (2002), focussed on studying "the degree to which people carry out their actions with a sense of autonomy" (Matos-Fernández, 2009, p. 168). It refers to the practice of providing students with a certain degree of freedom and flexibility in learning,

offering them the opportunity to decide how they want to learn (Chaudhuri, 2020).

Self-determination theory holds that the setting affects behaviour. Therefore, in a learning climate that is conducive to encouraging autonomy, students will tend to take their own problem solving decisions (Ossa Cornejo & Aedo Saravia, 2014), thus contributing to the development of aspects relating to cognition.

Taking into consideration that gamification sets constant challenges for students where decision making and problem solving are embedded in the development of the game, we establish the following proposition:

GRAPH 1. Conceptual model.
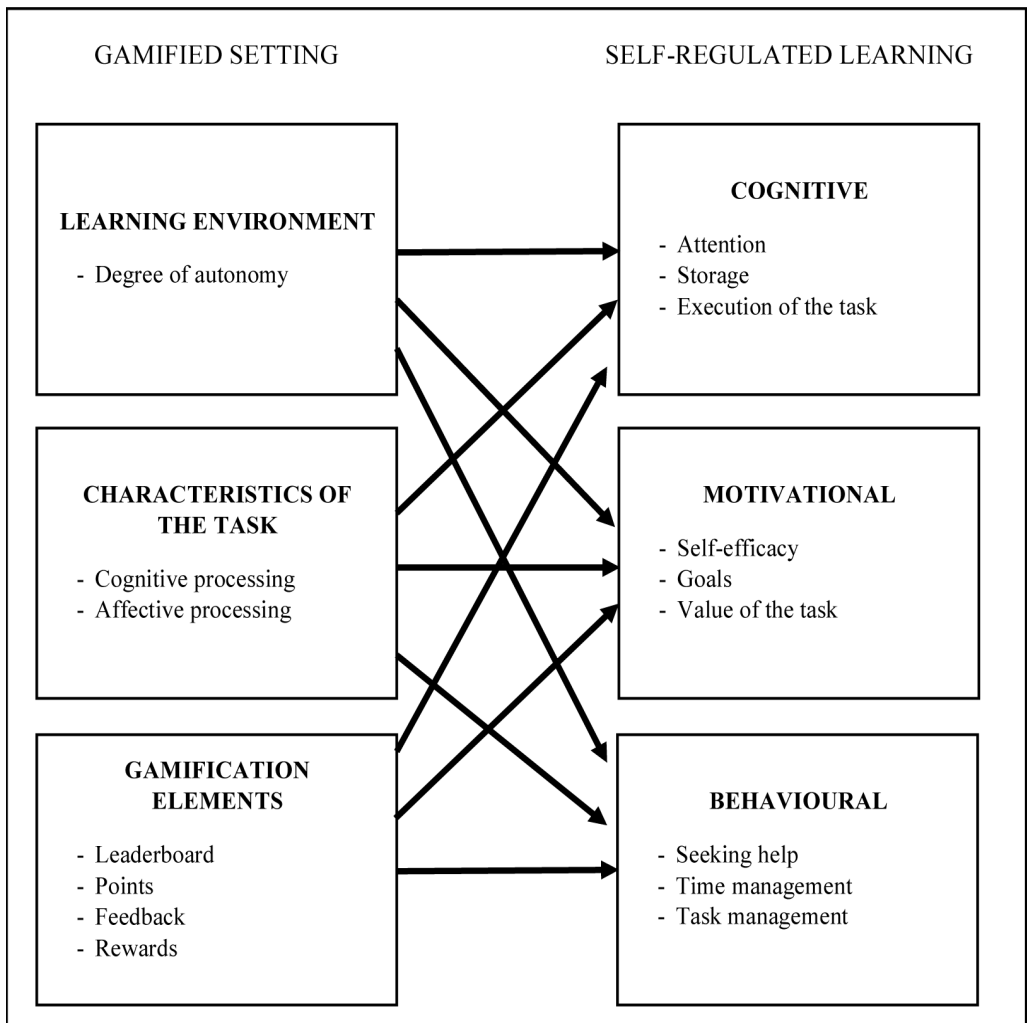
Source: Own elaboration.

P1a: The learning climate gamification creates has a positive influence on the cognitive component.

When teachers create a learning setting through activities that are rewarding for students, present them with challenges to achieve and this is simultaneously offered in a context that supports their autonomy, it will be very likely that a motivational force is developed that results in learning achievements (Maldonado et al., 2017).

Therefore, we have established that:

P1b: The learning climate gamification creates has a positive influence on the motivational component.

The possibility of improving the autonomy with which students operate will enable them to acquire greater responsibility in the construction of the learning, they will find meaning in concepts and procedures, and they will increase their confidence in their own abilities (González & Escudero, 2007). Nonetheless, the figure of the teacher and the predisposition of the students as a group are vital.

A fundamental concept in any game mechanism is the "bi-directionality of the interaction and the relationship", where the process must be an interaction between peers and between peers and their teacher (Parente, 2016). Therefore, one of the fundamental pillars of gamification is constant feedback.

Consequently, under the assumption that a gamified system creates the right environment for students to identify their needs, take the initiative in asking for help, and administer time better in order to continue advancing in the game, we have established that:

P1c: The learning climate gamification creates has a positive influence on the behavioural component.

One of the important elements for guaranteeing the quality of learning is determined by the tasks the students perform (Garello & Rinaudo, 2012).

Cognitive processing activities are those intended for students to process learning content by linking concepts, selecting key points, or seeking practical applications. Affective processing activities, however, are directed at confronting the feelings that arise during learning and inspire a particular emotional state (Garello & Rinaudo, 2012).

We can, therefore, affirm that gamified tasks are cognitive and affective processing activities given that using game strategies in teaching-learning environments facilitates useful comprehension of the content covered in class, as it becomes a more enjoyable and entertaining action (Oliva, 2016), and also the creation of an appropriate motivational context so that students achieve positive emotions.

In relation to this last aspect, Pintrich and García (1991) have already established that when students positively value the tasks they do, they tend to be more engaged in their learning process, thus incentivising more frequent use of cognitive strategies.

The gamified system, therefore, should be approached in such a way that students

can see their progress and setbacks at all times, revealing their strengths and weaknesses to them. In this sense, the presence of continuous feedback is vital, since as the learners supervise the realisation of their tasks, an internal feedback that is inherent to the task of instruction is created (Lamas Rojas, 2008).

In addition, it is hoped that gamified tasks will help students to persist with doing them, a fundamental skill for achieving self-regulation (Pintrich y García, 1993), which has a direct impact on their cognitive area.

In view of the above, we have established that:

P2a: The characteristics of the tasks in a gamified system have a positive influence on the cognitive component.

In addition, we believe that if the task to be done is gamified and students are encouraged to participate more actively through rewards, this will ensure that the characteristics of the task will have a satisfactory effect on the motivational component.

However, it is important to take into account that the system of rewards must be designed in a way that stimulates students' intrinsic motivation, otherwise, their self-efficacy or the goals or value of the task could be at risk.

Ryan and Deci, who are reference points on the subject of intrinsic and extrinsic motivation, define intrinsic motivation as "the doing of an activity for its in-herent satisfactions rather than for some separable consequence" (Ryan & Deci, 2000, p. 56), while extrinsic motivation "pertains whenever an activity is done in order to attain some separable outcome" (Ryan & Deci, 2000, p. 60).

Orbegoso (2016) states that intrinsic motivation is the form of motivation that can truly inspire change and real progress in people's behaviour. He notes that "it derives from the underlying incentives in the task itself, its difficulty, the challenge or stimulus undertaking this action and attempting to complete it satisfactorily represents for the individual" (Orbegoso, 2016, p. 77). Ultimately, it is the spontaneous tendency of individuals to explore novel focuses to learn and participate in an activity they perceive to be interesting (Chaudhuri, 2020).

There is no doubt that stimulating students' intrinsic motivation should be the ultimate aim of any teacher (Romo & Montes, 2018, p. 47), and so when designing a gamified practice, the elements selected should respond to this aim, and of course, the system of rewards should too.

Intrinsic rewards must therefore be created that encourage the desire to learn and carry on participating. This means that they must be associated with the development of the game and not an external stimulus as an improvement in the grade for the subject might be. So for example, one intrinsic reward could be obtaining privileged information that helps advance in the game or obtaining extra points that help complete a level.

It is also important to take into account that, when designing gamified activities, it is necessary to provide a balance between the knowledge acquired and the level of difficulty of the tasks, in the same way that low penalties for tasks not successfully completed must be established. Students could be made to feel of failure and defeat, negatively affecting the components of self-regulation, especially the motivational element (Domínguez et al., 2013).

Based on the consideration that gamified tasks increase the value of the task, favour beliefs of self-efficacy, and the system itself encourages the student to set learning goals, we have established that:

P2b: The characteristics of the tasks in a gamified system have a positive influence on the motivational component.

That said, the emotional reaction that taking part in a game causes is also closely related to feedback and the constant interaction that occurs in the process of playing (Simó & Domènech-Casal, 2018).

This is why the presence of the feedback element in gamified activities is so important. When the teaching-learning process is stripped of its punitive character when learners make mistakes, these errors are turned into learning opportunities (Ardila-Muñoz, 2019), and students are guided in the use of tools with which they can manage their time and the task correctly and seek help, it will be closer to having an impact on the behavioural component as well.

Therefore, we have established that:

P2c: The characteristics of the tasks in a gamified system have a positive influence on the behavioural component.

The reasoning behind the design of the games in gamified experiences is perhaps the most important element (Domínguez García & Mora Merchán, 2014). A gamified system should contain challenges, feedback, incentives, points, and leaderboards grouped into what are called dynamics, mechanics, and game elements, which allow users constantly to be aware of how they are doing things.

So, with a system of rewards, there is immediate recognition in the form of points, prizes, etc. for completing a task, in the hope that students will experience an emotional reaction when overcoming the difficulties (Domínguez et al., 2013) and will find incentives to develop cognition and modify behaviour if necessary.

In this way, the system of rewards fosters effort and collaboration while students are rewarded for overcoming challenges (Badilla & Núñez, 2018), with a direct impact on their attention, storage, and execution of the task.

Therefore, we have established that:

P3a: The game elements typical of gamified settings have a positive influence on the cognitive component.

As is shown throughout this work, the use of any element characteristic of games has a direct impact on the

motivational area. So, rewards for points achieved, continuous feedback, the challenge of completing a task, or the presence of a leaderboard where students can always monitor their performance, thus incentivising them to progress and climb the table, are unprecedented motivational elements.

New generations need the recognition and support of their teachers, less formal relationships, and a warm and relaxed learning setting where they feel secure expressing their doubts or feelings (Chaudhuri, 2020). Gamification is an ideal tool for achieving this.

Therefore, we have established that:

P3b: The game elements typical of gamified settings have a positive influence on the motivational component.

It is vital that the elements selected for gamifying foster the development in the user of logical and critical-reflexive thinking skills; analysis and synthesis skills; skills for planning, organising, and controlling the execution of the activity; skills for regulating attention and concentration and skills for reflecting on one's own thought process and its content (Klimenko & Alvares, 2009), ultimately, making users reflect on the need to ask for help and orientate management of time and the task.

Accordingly, given that gamification makes it possible to orientate changes in users' behaviour towards the creator's wishes (Werbach & Hunter, 2012), we have established that:

P3c: The game elements typical of gamified settings have a positive influence on the behavioural component.

5. Conclusions

The implementation of the European higher education system has motivated interest in continued research into self-regulated learning, thanks to the capacity for command, regulation, and control students acquire over their own learning process, and ultimately research on the acquisition of the current learning to learn competence.

Pedagogy has moved from a text and lecture style model to a model based on collaboration between teachers and students (Chaudhuri, 2020), with the learning to learn competence becoming key in the new educational system and in which self-regulated learning is founded on the formulation of this competence (Gargallo López et al., 2020).

Academic literature on self-regulated learning provides evidence of the self-regulatory shortcomings of university students, and experts in the field assert that there is a need to encourage this type of learning through instruction (Zambrano & Villalobos, 2013).

This requires an effective and attractive teaching method that can capture students' attention, actively engage them, and help them understand the associated benefits for their professional development. To this end, didactic efforts should be directed at awakening students' intrinsic motivation, as intrinsically motivated

individuals have been found to accept problems as personal challenges without desiring or hoping for an external reward (Orbegoso, 2016).

In addition, there is unanimous agreement on the influence of motivation, cognition, and behaviour on human performance when these aspects work in unison (Benavidez & Flores, 2019). However, although the emotional area being the cornerstone of cognitive (Treviño, 2020) and behavioural achievement, in order to motivate students, it is vital to generate the appropriate motivational context (García Bacete & Domènch Betoret, 1977).

Therefore, we believe that a gamified setting combines the optimal environmental conditions to favour students' motivation, cognition, and behaviour thanks to the interest that the use of game dynamics in educational settings inspires (Navarro, 2017).

It should be noted that until now there has not been a tool considered by experts for studying self-regulation of learning.

On the other hand, the theoretical foundations surrounding the topic of self-regulation, regard setting as an element involved in the self-regulation process (Pintrich, 2004; Torrano et al., 2017). Nonetheless, the present work maintains that context is independent of this process, giving rise to a proposal for a conceptual analysis model that accounts for the positive influence of a gamified context on academic self-regulation.

The theoretical model proposed is the result of a solid literature review that has made it possible to identify the appropriate variables and the relevant propositions to be able to test it in future research.

The logical reasoning we have followed, based on what was established in the literature review, is as follows: whether cognition and behaviour depend on motivation and motivation depends on the learning context, the starting point for guaranteeing success in self-regulation must lie in considering context as an independent variable. We therefore set out to evaluate whether cognition, motivation, and behaviour are easier to regulate in an environment that is attractive, positive, and creative.

Ultimately, we provide a proposal that impacts various aspects:

- The synergies associated with the combination of two lines of research, until now studied in isolation – gamification and self-regulated learning – are justified.

- The contextual component is emphasised by offering a new perspective on self-regulated learning by considering context as an independent variable and not as an internally engaged model, as has been done until now.

- We propose a valid analytic model that can be adapted to any qualification, subject, or educational level.

- This provides the teaching community with a conceptual model endorsed with theoretical rigour and practically prepared for use as the basis of empirical study.

As a future line of work, we intend to test the model by implementing a gamified system in different subjects.

References

Ardila-Muñoz, J. Y. (2019). Supuestos teóricos para la gamificación de la educación superior [Theoretical assumptions for the gamification of higher education]. *Magis, Revista Internacional de Investigación en Educación*, *12* (24), 71-84.

Area Moreira, M., & González González, C. S. (2015). De la enseñanza con libros de texto al aprendizaje en espacios online gamificados [From Teaching with Textbooks to Learning on Online Gamified Spaces]. *Educatio Siglo XXI*, *33* (3), 15-38.

Arnold, B. J. (2014). Gamification in education. *Proceedings of the American Society of Business and Behavioral Sciences*, *21* (1), 32-39.

Badilla, D. C., & Núñez, M. (2018). El uso de técnicas de gamificación para estimular las competencias lingüísticas de estudiantes en un curso de ILE [The use of gamification techniques to stimulate students' language competences in an English as a foreign language course]. *Revista de Lenguas Modernas*, *28*, 269-291.

Baldeón, J., Rodríguez, I., Puig, A., & López-Sánchez, M. (2017). Evaluación y rediseño de una experiencia de gamificación en el aula basada en estilos de aprendizaje y tipos de jugador [Evaluation and redesign of a classroom gamification experience based on learning styles and player types]. In R. Contreras & J. L. Eguia (Eds.), *Experiencias de gamificación en aulas* (pp. 95-111).

Benavidez, V., & Flores, R. (2019). La importancia de las emociones para la neurodidáctica [The importance of emotions for neurodidactics]. *Wímb Lu, 14* (1), 25-53.

Bransford, J. D., Brown, A. L., & Cocking, R. R. (2000). *How people learn*, *11*. National academy press.

Boekaerts, M., & Cascallar, E. (2006). How far have we moved toward the integration of theory and practice in self-regulation? *Educational Psychology Review*, *18* (3), 199-210.

Burkey, D. D., Anastasio, D. D., & Suresh, A. (2013, June 23-26). *Improving Student Attitudes Toward the Capstone Laboratory Course Using Gamification*. 120th American Society for Engineering Education Annual Conference and Exposition, Atlanta, Georgia, USA.

Cabero, J. A. (2013). El aprendizaje autorregulado como marco teórico para la aplicación educativa de las comunidades virtuales y los entornos personales de aprendizaje [Self-regulated learning as a theoretical framework for the educational application of virtual communities and personal learning environments]. *Teoría de la Educación. Educación y Cultura en la Sociedad de la Información, 14* (2), 133-156.

Caponetto, I., Earp, J., & Ott, M. (2014). Gamification and education: A literature review. In C. Busch (Ed.), *European Conference on Games Based Learning. Vol. 1* (pp. 50-57). Academic Conferences International Limited.

Chaudhuri, J. D. (2020). Stimulating intrinsic motivation in millennial students: a new generation, a new approach. *Anatomical Sciences Education*, *13* (2), 250-271.

Cortizo Pérez, J. C., Carrero García, F. M., Monsalve Piqueras, B., Velasco Collado, A., Díaz del Dedo, L. I., & Pérez Martín, J. (2011, July 11-12). *Gamificación y Docencia: lo que la universidad tiene que aprender de los videojuegos [Gamification and Teaching: what universities need to learn from video games]* [Paper presentation]. 8th International Conference on University Innovation at the Universidad Europea de Madrid, Villaviciosa de Odón, Spain. http://hdl.handle.net/11268/1750

Daniela, B., Pérez, M. V., Bustos, C., & Núñez, J. C. (2017). Propiedades psicométricas del inventario de procesos de autorregulación del aprendizaje en estudiantes universitarios chilenos [Psychometric properties of the inventory of self-regulation of learning processes in Chilean university students]. *Revista Iberoamericana*

de Diagnóstico y Evaluación-e Avaliação Psicológica, *2* (44), 77-91.

Daura, F. T. (2013). El contexto como factor del aprendizaje autorregulado en la educación superior [Context as a factor in self-regulated learning in higher education]. *Educación y Educadores, 16* (1), 109-125.

Deci, E. L., & Ryan, R. M. (2002). Overview of self-determination theory: An organismic dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3-33). University of Rochester Press.

Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: defining "gamification". In *MindTrek'11: Proceedings of the 15th international academic MindTrek conference: Envisioning future media environments* (pp. 9-15). Association for Computing Machinery. https://doi.org/10.1145/2181037.2181040

Díaz Mujica, A., Pérez Villalobos, M. V., González-Pienda, J. A., & Núñez Pérez, J. C. (2017). Impacto de un entrenamiento en aprendizaje autorregulado en estudiantes universitarios [The impact of self-regulated learning training on university students]. *Perfiles Educativos*, *39* (157), 87-104.

Dicheva, D., Dichev, C., Agre, G., & Angelova, G. (2015). Gamification in education: A systematic mapping study. *Journal of Educational Technology & Society*, *18* (3), 75-88.

Domínguez, A., Sáenz-De-Navarrete, J., De-Marcos, L., Fernández-Sanz, L., Pagés, C., & Martínez-Herráiz, J. J. (2013). Gamifying learning experiences: Practical implications and outcomes. *Computers & education*, *63*, 380-392.

Domínguez García, R., & Mora Merchán, J. A. (2014). Proyecto Ludus: Impacto de una metodología gamificada en los procesos de autorregulación de estudiantes de educación superior [Ludus Project: Impact of a gamified methodology on the self-regulation processes of higher education students]. In *IV Jornadas de Innovación Docente. Abriendo caminos para la mejora educativa*. Universidad de Sevilla. Facultad de Ciencias de la Educación. http://hdl.handle.net/11441/59123

Fernández, E., Bernardo, A., Suárez, N., Cerezo, R., Núñez, J. C., & Rosário, P. (2013). Predic-

ción del uso de estrategias de autorregulación en la educación superior: un análisis a nivel individual y de contexto [Predicting the use of self-regulation strategies in higher education: an analysis at the individual and contextual level]. *Anales de Psicología/Annals of Psychology*, *29* (3), 865-875.

Fernández-Zamora, J. C., & Arias-Aranda, D. (2017). Implementation of a gamification platform in a master degree (master in economics). *WPOM-Working Papers on Operations Management*, *8*, 181-190.

García Bacete, F. J., & Doménech Betoret, F. (1997). Motivación, aprendizaje y rendimiento escolar [Motivation, learning and school performance]. *Reme, 1* (3), 1-18.

García Magro, C., Martín Peña, M. L., & Díaz Garrido, E. (2019). Protocol: Gamify a Subject without Advanced Technology. *WPOM-Working Papers on Operations Management*, *10* (2), 20-35.

Garello, M. V., & Rinaudo, M. C. (2012). Características de las tareas académicas que favorecen el aprendizaje autorregulado y la cognición distribuida en estudiantes universitarios [Characteristics of academic tasks that favour self-regulated learning and distributed cognition in university students]. *REDU: Revista de Docencia Universitaria*, *10* (3), 415-440.

Gargallo López, B., García-García, F. J., López-Francés, I., Jiménez Rodríguez, M. Á., & Moreno Navarro, S. (2020). La competencia aprender a aprender: valoración de un modelo teórico | *The learning to learn competence: An assessment of a theoretical model*. **revista española de pedagogía**, *78* (276), 187-211. https://doi.org/10.22550/REP78-2-2020-05

González Gascón, E., & Aljaro Palacios, M. (2011). La influencia de la motivación académica en el aprendizaje autorregulado de los estudiantes en un entorno semipresencial [The influence of academic motivation on students' self-regulated learning in a blended learning environment]. In M.ª T. Tortosa Ybáñez, J. D. Álvarez Teruel, & N. Pellín Buades (Coords.), *Jornadas de Redes de Investigación en Docencia Universitaria: diseño de buenas prácticas docentes en el contexto actual*. Universidad de Alicante. http://hdl.handle.net/10045/19885

González Gascón, E., De Juan, M. D., Parra Azor, J. F., Sarabia Sánchez, F. J., & Kanther, A. (2010). Aprendizaje autorregulado: antecedentes y aplicación a la docencia universitaria de marketing [Self-regulated learning: Background and application to university marketing teaching]. *Revista de investigación Educativa*, *28* (1), 171-194.

González González, C. S., & Mora Carreño, A. (2015). Técnicas de gamificación aplicadas en la docencia de Ingeniería Informática [Gamification techniques applied to the teaching of Computer Engineering]. *ReVisión*, *8* (1), 29-40.

González, S., & Escudero, C. (2007). En busca de la autonomía a través de las actividades de cognición y de metacognición en ciencias [In search of autonomy through cognition and metacognition activities in science]. *Revista Electrónica de Enseñanza de las Ciencias*, *6* (2), 310-330.

Higgins, E. T., Grant, H., & Shah, J. (2003). 13 self-regulation and quality of life: emotional and non-emotional life experiences. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well Being: Foundations of Hedonic Psychology* (pp. 244-266). Russell Sage Foundation.

Kapp, K. M. (2012). Games, gamification, and the quest for learner engagement. *T+D*, *66* (6), 64-68.

Klimenko, O., & Alvares, J. L. (2009). Aprender cómo aprendo: la enseñanza de estrategias metacognitivas [Learning how I learn: Teaching metacognitive strategies]. *Educación y Educadores*, *12* (2), 11-28.

Lamas Rojas, H. (2008). Aprendizaje autorregulado, motivación y rendimiento académico [Self-regulated learning, motivation and academic performance]. *Liberabit*, *14* (14), 15-20.

Ley, K., & Young, D. B. (2001). Instructional principles for self-regulation. *Educational Technology Research and Development*, *49* (2), 93-103.

Li, W., Grossman, T., & Fitzmaurice, G. (2012). GamiCAD: a gamified tutorial system for first time autocad users. In *Proceedings of the 25th annual ACM symposium on User interface software and technology (UIST '12)* (pp. 103-112). Association for Computing Machinery. https://doi.org/10.1145/2380116.2380131

Lindner, R. W., Harris, B. R., & Gordon, W. I. (1996, April 8-12). *The design and development of the "self-regulated learning inventory": A status report* [Poster presentation]. Annual Meeting of the American Educational Research Association, New York, USA.

López, E. S. (2014). El uso de los juegos y simuladores de negocio en un entorno docente [The use of business games and simulators in a teaching environment]. *Oikonomics: Revista de Economía, Empresa y Sociedad*, *1*, 86-92.

Maldonado Maldonado, E., Pacheco Rios, R., & Zamarripa Rivera, J. (2017). Validación mexicana del cuestionario de clima de aprendizaje adaptado a la educación física [Mexican validation of learning climate questionnaire for physical education]. *Retos: Nuevas Tendencias en Educación Física, Deporte y Recreación*, *32*, 115-118.

Martín, M. G. (2012). La autorregulación académica como variable explicativa de los procesos de aprendizaje universitario [Academic self-regulation as an explanatory variable of the university learning processes]. *Profesorado. Revista de Currículum y Formación de Profesorado*, *16* (1), 203-221.

Martín-Peña, M. L., Díaz-Garrido, E., Gutiérrez, B., & Del Barrio, L. (2011). Estudio comparativo de cambios metodológicos y percepción del alumno en la materia de Dirección de producción y operaciones para la adquisición de competencias en el proceso de adaptación al EEES [Comparative study of methodological changes and student perception in the subject of Production and Operations Management for the acquisition of competences in the process of adaptation to the EHEA]. *Revista de Formación e Innovación Educativa Universitaria*, *4* (2), 126-144.

Matos-Fernández, L. (2009). Adaptación de dos cuestionarios de motivación: Autorregulación del Aprendizaje y Clima de Aprendizaje [Adaptation of two motivation questionnaires: Self-regulation of learning and learning climate]. *Persona*, *12*, 167-185.

Melo-Solarte, D. S., & Díaz, P. A. (2018). El aprendizaje afectivo y la gamificación en escenarios de educación virtual [Emotional learning and gamification in virtual education environments]. *Información Tecnológica*, *29* (3), 237-248.

Montero, I., & de Dios, M. J. (2004). Sobre la obra de Paul R. Pintrich: la autorregulación de los procesos cognitivos y motivacionales en el contexto educativo [On the work of Paul R. Pintrich: the self-regulation of cognitive and motivational processes in the educational context]. *Electronic Journal of Research in Educational Psychology*, *2* (3),189-196.

Navarro, G. M. (2017). Tecnologías y nuevas tendencias en educación: aprender jugando. El caso de Kahoot [Technologies and new trends in education: learning by playing. Kahoot case]. *Opción: Revista de Ciencias Humanas y Sociales*, *33* (83), 252-277.

Núñez, J. C., Solano, P., González-Pienda, J. A., & Rosário, P. (2006a). El aprendizaje autorregulado como medio y meta de la educación [Self-regulated learning as a means and goal of Education]. *Papeles del Psicólogo*, *27* (3), 139-146.

Núñez, J. C., Solano, P., González-Pienda, J. A., & Rosário, P. (2006b). Evaluación de los procesos de autorregulación mediante autoinforme [Assessment of self-regulation processes through self-reporting]. *Psicothema*, *18* (3), 353-358.

Oliva, H. A. (2016). La gamificación como estrategia metodológica en el contexto educativo universitario [Gamification as a methodological strategy in the university educational context]. *Realidad y Reflexión,16* (44), 108-118.

Orbegoso, A. (2016). La motivación intrínseca según Ryan & Deci y algunas recomendaciones para maestros [Intrinsic motivation according to Ryan & Deci and some recommendations for teachers]. *Educare, Revista Científica de Educação, 2* (1), 75-93.

Ossa Cornejo, C., & Aedo Saravia, J. (2014). Enfoques de aprendizaje, autodeterminación y estrategias metacognitivas en estudiantes de pedagogía de una universidad chilena [Learning approaches, metacognitive strategies and self-determining in pedagogy students of a Chilean university]. *Ciencias Psicológicas*, *8* (1), 79-88.

Parente, D. (2016). Gamificación en la educación [Gamification in education]. In R. Contreras Espinosa & J. Gómez (Eds.), *Gamificación en aulas universitarias* (pp. 11-21). InCom-UAB.

Paz, P. M. L. (2018). Estrategias de aprendizaje y motivación que caracterizan el aprendizaje autorregulado en los estudiantes de la escuela profesional de sociología– UNA PUNO [Learning and motivation strategies that characterize selfregulated learning in students of the professional school of sociology – UNAP]. *Revista de Investigaciones de la Escuela de Posgrado de la UNA PUNO*, *7* (4), 759-773.

Peñalosa Castro, E., & Castañeda Figueiras, S. (2008). Generación de conocimiento en la educación en línea: un modelo para el fomento de aprendizaje activo y autorregulado [Knowledge generation in online education: a model for fostering active and self-regulated Learning]. *Revista Mexicana de Investigación Educativa*, *13* (36), 249-281.

Patricia Díaz, P. (2017). Gamificando con Kahoot en evaluación formativa [Gamifying with Kahoot in educational evaluation]. *Revista Infancia, Educación y Aprendizaje*, *3* (2), 112-117.

Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In M. Boekaerts, P. R. Pintrich y M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 451-502). Academic Press.

Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. *Educational Psychology Review*, *16* (4), 385-407.

Pintrich, P. R., & García, T. (1991). Student goal orientation and self-regulation in the college classroom. In M. Maehr & P. R. Printrich (Eds), *Advances in motivation and achievement: Goals and self-regulatory processes*, *7* (pp. 371-402). JAI Press.

Pintrich, P. R., & García, T. (1993). Intraindividual differences in students' motivation and selfregulated learning. *German Journal of Educational Psichology*, *7* (3), 99-107.

Prieto, J. M. A. (2020). Una revisión sistemática sobre gamificación, motivación y aprendizaje en universitarios [A systematic review on gamification, motivation and learning in university students]. *Teoría de la Educación. Revista Interuniversitaria*, *32* (1), 73-99.

Reyna Treviño, C. A. (2020). La autorregulación emocional y cognitiva a favor del aprendizaje [Emotional and cognitive self-regulation in su-

pport of learning]. *Educando para educar*, *20* (38), 109-120.

Rodrigues da Silva, R. J., Gouveia Rodrigues, R., & Pereira Leal, C. T. (2019). Gamification in management education: A systematic literature review. *BAR-Brazilian Administration Review*, *16* (2). https://doi.org/10.1590/1807-76 92bar2019180103

Rodríguez, C. A. C. (2018). Gamificación en educación superior: experiencia innovadora para motivar estudiantes y dinamizar contenidos en el aula [Gamification in higher education: Innovative experience to motivate students and stimulate content in the classroom]. *Edutec. Revista Electrónica de Tecnología Educativa*, *63*, 29-41.

Romo, M. G. A., & Montes, J. F. C. (2018). Gamificar el aula como estrategia para fomentar habilidades socioemocionales [Gamifying the classroom as a strategy to foster socio-emotional skills]. *Directorio*, *8* (31), 41.

Rosário, P., Lourenço, A., Paiva, O., Rodrigues, A., Tuero Herrero, E., & Valle Arias, A. (2012). Predicción del rendimiento en matemáticas: efecto de variables personales, socioeducativas y del contexto escolar [Predicting mathematics achievement: the effect of personal, socio-educational and school context variables]. *Psicothema*, *24* (2), 289-295.

Rosário, P, Mourão, R., Núñez Pérez, J. C., González García, J. A., Solano Pizarro, P., & Valle Arias, A. (2007). Eficacia de un programa instruccional para la mejora de procesos y estrategias de aprendizaje en la enseñanza superior [Effectiveness of an instructional programme for the improvement of learning processes and strategies in higher Education]. *Psicothema, 19* (3), 422-427.

Rubio, E. P. (2014). Juegos como elemento docente en un entorno TIC [Games as an educational element in an ICT environment]. *Revista Aequitas: Estudios sobre Historia, Derecho e Instituciones*, *4*, 407-416.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. C*ontemporary Educational Psychology*, *25* (1), 54-67.

Samaniego Ocampo, R. D. L. (2016). Aplicación de juegos digitales en educación superior [Applica-

tion of digital games in higher education]. *Revista San Gregorio*, *11*, 82-91.

Seaborn, K., & Fels, D. I. (2015). Gamification in theory and action: A survey. *International Journal of Human-Computer Studies*, *74*, 14-31.

Simó, V. L., & Domènech-Casal, J. (2018). Juegos y gamificación en las clases de ciencia: ¿una oportunidad para hacer mejor clase o para hacer mejor ciencia? [Games and gamification in science classrooms: an opportunity to make the lesson better or to make science better?]. *Revista Eletrônica Ludus Scientiae, 2* (1), 34-44.

Suárez, J. M. R., & Fernández, A. P. (2011). Evaluación de las estrategias de autorregulación afectivo-motivacional de los estudiantes: Las EEMA-VS [Assessment of students´ affective-motivational self-regulatory strategies: The EEMA-VS]. *Anales de Psicología/Annals of Psychology*, *27* (2), 369-380.

Suelves, D. M., Esteve, M. I. V., Chacón, J. P., & Marí, M. L. (2018). Gamificación en la evaluación del aprendizaje: valoración del uso de Kahoot! [Gamification in the evaluation of learning: assessment of the use of Kahoot!]. In REDINE (Ed.), *Innovative strategies for Higher Education in Spain* (pp. 8-17). Adaya Press.

Torrano, F., Fuentes, J. L., & Soria, M. (2017). Aprendizaje autorregulado: estado de la cuestión y retos psicopedagógicos [Self-regulated learning: state of the issue and psycho-pedagogical challenges]. *Perfiles educativos*, *39* (156), 160-173.

Torrano, F., & González, M. C. (2004). Self-regulated learning: Current and future directions. *Electronic Journal of Research in Educationa Psychology, 2* (1), 1-34

Valenzuela-Zambrano, B., & Pérez-Villalobos, M. V. (2013). Aprendizaje autorregulado a través de la plataforma virtual Moodle [Self-regulated learning trough the Moodle virtual platform]. *Educación y Educadores*, *16* (1), 66-79.

Valle Arias, A., González Cabanach, R., Barca Lozano, A., & Núñez Pérez, J. C. (1997). Motivación, cognición y aprendizaje autorregulado [Motivation, cognition, and self-regulated lear-

ning]. **revista española de pedagogía**, *55* (206), 137-164.

Valle Arias, A., Sánchez Rodríguez, S. M., Núñez Pérez, J. C., González Cabanach, R., González García, J. A., & Rosário, P. (2010). Motivación y aprendizaje autorregulado [Motivation and self-regulated learning]. *Interamerican Journal of Psychology*, *44* (1), 86-97.

Vermunt, J. D. (1996). Metacognitive, cognitive and affective aspects of learning styles and strategies: A phenomenographic analysis. *Higher education*, *31* (1), 25-50.

Werbach, K., & Hunter, D. (2012). *For the win: How game thinking can revolutionize your business*. Wharton Digital Press.

Williams, G. C., & Deci, E. L. (1996). Internalization of biopsychosocial values by medical students: a test of self-determination theory. *Journal of Personality and Social Psychology*, *70* (4), 767-779.

Winne, P. H. (2004). Students' calibration of knowledge and learning processes: Implications for designing powerful software learning environments. *International Journal of Educational Research*, *41* (6), 466-488.

Zatarain, R. C. (2018). Reconocimiento afectivo y gamificación aplicados al aprendizaje de Lógica algorítmica y programación [Affective recognition and gamification applied to learning algorithmic logic and programming]. *Revista Electrónica de Investigación Educativa*, *20* (3), 115-125.

Zimmerman, B. J., & Schunk, D. H. (Eds.) (1989). *Self-Regulated learning and academic achievement. Theory, research and practice*. Sringer-Verlag.

Zulma Lanz, M. (2006). Aprendizaje autorregulado: el lugar de la cognición, la metacognición y la motivación [Self-regulated learning: The place of cognition, metacognition and motiva-

tion]. *Estudios Pedagógicos (Valdivia)*, *32* (2), 121-132.

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Book reviews

Bellamy, F-X. (2020).
Permanecer: para escapar del tiempo del movimiento perpetuo
[Remain: to escape the time of perpetual motion]
(Enrique Alonso-Sainz).

Camps Bansell, J. (2021).
Corazón educador. Un ensayo sobre la vocación a la enseñanza
[A heart for educating. An essay on the call to teach]
(Jordi Claret Terradas).

De Marzio, D. M. (Ed.) (2021).
David Hansen and the Call to Teach. Renewing the Work that Teachers do
(María G. Amilburu).

Bohlin, K. (2020).
Educando a través de la literatura: despertando la imaginación moral
en las aulas de secundaria
[Teaching Character Education through Literature. Awakening the Moral Imagination
in Secondary Classrooms].
(Verónica Fernández Espinosa).

Book reviews

Bellamy, F-X. (2020).
Permanecer: para escapar del tiempo
del movimiento perpetuo [Remain:
to escape the time of perpetual motion].
Encuentro. 205 pp.

When one has before them the latest book by the French thinker and politician, François-Xavier Bellamy, the first thing that stands out is its cover. The photograph of a gargoyle of the Nôtre Dame cathedral, still, motionless, in an observant, waiting position, dominates the front of the manuscript. This image is a perfect allegory of what the reader will find on the following pages.

Bellamy invites us to reflect and turn our eyes towards what surrounds us. In a time where time itself does not exist, where change, speed and innovation are the general tonics of daily life and of collective thinking, is it worth stopping and remaining? Is it worth it not to subordinate ourselves to the speed that the world invites us to go? Is it necessary to go along with today's frenetic pace of life and thinking? Questions that seek answers through a deep and critical overview of collective thinking in the 21st century.

"One of the characteristic features of this moment in human history is the affirmation of change as a fundamental norm" (p. 46). Everything is in constant movement, we do not allow ourselves to stop, which, according to the author, involves an absolute loss of fixed ultimate objectives and, therefore, of direction. Whereas before progress sought to achieve an end state of greater perfection, innovation has now turned change into an end in itself: "What moves us is the passion for movement and nothing else, since we do not need to know where it is leading us. [...] We do not run to chase after goals, rather we run for the sake of running" (p. 57). This is how things are. Everything has become a fad, and what is trendy has become the moral principle of an entire society that seeks the constant indulgence of its desires.

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A good example of this could be justice as a means for the progress of society. It has undergone a metamorphosis, seeking to *adapt to society* and its desires before the intangible ideal of building a better society, which leads to legislating to satisfy rather than to progress. However, justice is in itself external to time, unrelated to movement, eternal. One can desire changes that lead to a more just and better society, but in order for real progress to be possible, it is necessary to accept "that fixed point towards which we are heading, even if we do not know it perfectly well" (p. 123). If there is no collectively accepted end point that supports the change we have accepted, there can be no real justice and, therefore, we will not be able to improve, as every desire ends up expiring or being satisfied and transforming into another.

In reality, what we seek today is the total rupture with that which apparently coerces our freedom to do and undo as we please. Modern history teaches us how humans are inclined towards the perfection and development of technology only to undo the natural restrictions that affect the freedom of the person and stand between desires and satisfaction. A very clear example is the conquest: of the moon: "why do we want to go to the moon, other than the fact that we can't stand that something is far away?" (p. 146); or the obsession for immediacy that leads us to want to break the limits imposed by space and time, "it is not only a matter of allowing ourselves to go anywhere, but of reducing to a minimum the time required for the journey. It is

not a matter of delivering the object we want to consume but of delivering it immediately" (p. 147). No resistance can come between us and the object of desire.

This obsession with change and the breaking of limits is not only realised in that which is external to us, but the very attempt to break through the obstacles of life itself and the condition of being human are also subject to this current. Transhumanism and posthumanism have this desire implicit in their philosophy. If we are free, for example, nothing can prevent me from having a child with certain features or from conceiving a child without the need to get together with another person of the opposite sex, if the desire to have a child exists, it must be able to be satisfied. Nevertheless, these supposed walls that we want to tear down and which represent a defect in life, are in reality that which defines it in the strongest sense. To want to put an end to death itself, the greatest limit imposed on human beings, is not, as transhumanists and posthumanists claim, *the death of death*, but the death of life itself. The person must have a goal to aim for. Life has a direction, it is not infinite, and it is this movement, this insurmountable limit, this ultimate goal, which gives it meaning: "if we become absolutely mobile, we will be absolutely dead" (p. 152).

Returning to the idea of progress, this has also become very distorted in recent times, "progressivism has destroyed the idea of progress by describing change as necessary as a matter of principle" (p. 126).

Progress implies something greater than a simple change, it implies a real improvement geared towards a specific purpose, "there can only be real progress if there is something permanent to approach" (p. 122). There really are many innovations today, great advances in fields such as science or technology, but this does not mean progress. In many cases, innovation improves technology, but does not eliminate conflicts, it only displaces them. Never in history have we been able to move so much and so fast, and never in history have we spent so much time moving around either. Great innovations have not always led to our progress, many have only displaced the problem.

An example of this false idea of progress is politics, which has given ground to such, inserting the word *transformation* in all discourse as a banner. Everyone who comes to power gives in to a supposed transformation of society, a change, supposed progress for the sake of evolution; something very wrong in reality. Due to this quest for change, there is a very high risk of putting an end to this order that has been formed and slowly matured, "which is irreplaceable in its complexity, its flexibility and its richness" (p. 101). The speed we have reached is so frenetic that there is no possibility of transmitting that which we have inherited and which is immobile. We are exclusively looking ahead to the future, on a circular horizon that has no end and that prevents us from looking at the past. Progressivism has forgotten that the essential goods are those that require the most time, and that not

everything can be subject to the desire for immediacy. Thus, Bellamy urges us to recover the very meaning of progress and politics, the objective of which should be to recognise and transmit that which is worthwhile instead of blindly transforming everything, to make real progress instead of change for the sake of change.

Nevertheless, the author does not deny the need for movement; on the contrary, the idea of remaining completely immobile is as absurd as that of moving altogether. What should not take place is movement for the sake of movement, one should accept the immobile, permanent part that gives meaning to life and makes us move in a particular direction. Movement should not be seen as bad, provided that it makes sense, but running for the sake of running makes us lose our mind, the very essence of a person. We have completely discarded the intrinsic aspects that we cannot quantify or control, forgetting that "our work, like our lives, reaches fulfilment in the form of gratitude [...], what is most essential to our lives is and will always be that which cannot be counted" (p. 177), that is to say, that which must not be moved from us. If we completely lose sight of the meaning of our lives, if we forget the immobile part that sets the direction, we will lose life itself.

In short, perhaps Bellamy is right and we have to remain. What is perhaps not so clear is how to do it, what decisions or measures we should take politically and collectively to put the brakes on this movement and channel it towards a goal. Or

how we can transfer this approach to the field of education, to which it is intrinsically related, where the development of such would also involve going, in many cases, against the current.

It is clear that we cannot live or educate in perpetual movement, we must learn to wait, evaluate, think, remain and look back at the past in order to recognise what will make us better in the future. Perhaps we should be, in part, like that gargoyle of Nôtre Dame, which is still, patient, observant, fulfils its purpose and remains without changing its essence, because it knows that there is no point in changing if it does not lead to progress and thus better performance of its function.

Enrique Alonso-Sainz ∎

Camps Bansell, J. (2021).
Corazón educador. Un ensayo sobre la vocación a la enseñanza [A heart for educating. An essay on the call to teach]. Aula Magna/McGraw-Hill. 163 pp.

The recognition of the existence of a *call* to teach is shared by many. The book that concerns us intends to further examine the vocation of teaching, as well as to highlight other aspects, such as pedagogical love and intuition in order to place us in relation to the vocational aspect. At the same time, the author recognises his interest in addressing these aspects, which are largely intangible, as opposed to a certain educational technicality that only considers what is scientifically proven to be relevant.

The book chose to use footnotes, which enables it to be read at two levels depending on the degree of depth with which you wish to read. There is, undoubtedly, a notable effort to provide both bibliographical justification for the statements that are made and sources to expand on the aspects that appear.

According to the author, some educators felt the *call* early on and others unexpectedly over the years. Many people refer to and define it as "*their place in the world*", their sense of identity, personal fulfilment, a form of service to others. In short, the materialisation of their *raison d'être*. It is this, in principle, intangible aspect —the call to teach— that equips the person and enables them to respond to a new dimension. This inner disposition allows them to reach the core of their students, to take charge of their reality and needs; to ensure their optimum personal development. All of which is done intuitively, allowing them to respond immediately and aptly.

In this context, a kind of *affection* appears, sometimes neglected: pedagogical love. The author metaphorically likens pedagogical love to the "driving force" and intuition to the "movement". This driving force leads them to *take charge* of reality and respond appropriately in each educational situation.

We have before us an essay, a book for reflection that explores the immaterial aspects of interest in relation to the call to teach. The author's analysis attempts to provide unity and logic to very diverse

subjects, interweaving his own personal point of view. Within the framework of a humanistic and qualitative view of teaching, the book will be useful for novice teachers, students of education or those interested in reflecting and finding specific literature.

The study is in line with Max Van Manen's pedagogical view, which is oriented towards the description and interpretation of the essential structures of the experience in education, leading us to the *core* of the relationship between people (teacher-student). His approach brings us closer to the study of the immaterial dimensions inherent to the everyday pedagogical experience. As is correctly explained, this is difficult to achieve using the usual research approaches.

The book is organised into six chapters: after a brief introduction, the author provides an extensive justification of his work. The second chapter links the call to teach with pedagogical love and educational intuition. The third chapter speaks about the call to teach followed by a section in which the previous concepts are related. The fifth chapter deals with education from a personalistic perspective and the sixth chapter describes the school climate that can flourish in a vocational school environment. The book ends with a brief concluding chapter.

As far as literature is concerned, the knowledge of authors, many of them current, who have theorised and researched is analysed and the origin of texts and ideas carefully referenced. It also distinguishes the thoughts, reflections and experiences of the author himself and works with texts obtained from the reflections of teachers that are used to further examine the meaning that awaits behind the diversity of educational situations.

This book does not have a specific methodology, since it is not research. Rather, its aim is to further examine a topic of interest and convey an argued and concise view. It is not definitive either, as it is intended as a basis for thought and study, as well as the discovery of specific literature to further analyse certain aspects. Inductively, the aim is to gain a better understanding of the essential aspects by listening to those who are on the front line: the teachers.

The book concludes that the aspects developed, together with teaching skills, will lead to upstanding professionals in one of the most complex and crucial professions.

These intangibles will help create a warm, pleasant, safe, trusting atmosphere, which, through a friendly demand, will give way to profound mutual knowledge. For example, the manifestations of pedagogical love are presented based on the teacher's loving responsibility.

A heart for educating; transport and gateway to knowledge and relationships. Pedagogical love; human and effective teaching that harmonises the excessive technicality, thus penetrating the student's core in a respectful and delicate way.

Those who choose to base education only on scientific evidence will most likely not be able to understand many human situations in the classroom; perhaps leaving some specific needs of students unattended. Given their love for their students, the vocational teacher will find it easier to make the right decisions. They will have a greater capacity for reflection and intuition that will enable them to help their students.

Call to teach, pedagogical love and educational intuition; elements that *spiritualise* (humanise) school, also giving a *poetic aspect* to the teaching profession and life.

Jordi Claret Terradas ∎

De Marzio, D. M. (Ed.) (2021).
David Hansen and The Call to Teach.
Renewing the Work that Teachers do.
Teachers College Press. 148 pp.

It is 25 years since David T. Hansen published *The Call to Teach*, a book that has had an enormous impact on the training and professional development of many teachers—particularly at secondary level—both in the United States and the rest of the world.

Darryl M. De Marzio, Professor of Foundations of Education at the University of Scranton, is the editor of the volume discussed, which brings together eleven essays by renowned university professors from eight different countries. They discuss the theory and educational

practices inspired by the thinking of D. T. Hansen: in particular, the aforementioned *The Call to Teach* (1995) and a more recent book *Exploring the Moral Heart of Teaching: Toward a Teacher's Creed* (2001). The volume closes with a brief but substantial afterword by David T. Hansen himself.

De Marzio first read *The Call to Teach* while working on his doctoral thesis under the guidance of D. T. Hansen at Columbia University, and the two have maintained a fluid academic partnership ever since. The rest of the authors who sign the chapters in this volume have had personal dealings with Hansen—as students, colleagues or at international conferences—and they all express their appreciation for Hansen's work in the field of education, both in the field of Philosophy of Education and in the development of innovative educational practices. In some cases, they even go as far as to publicly express their gratitude for having enjoyed his friendship and benefited from the discreet and kind influence that Hansen has had on their lives, both professionally and personally. Ultimately, the book can be seen as a continuation of the dialogue Hansen initiated with teachers in *The Call to Teach*. It is a polyphonic reflection on the meaning of teaching when viewed from the perspective of the "vocation" of the teacher.

Some chapters of the book are of a more philosophical nature, such as those by Shelley Sherman, Emerita of Lake Forest College, and Hansjörg Hohr of the University of Oslo-Tronheim, who devel-

ops and comments on Hansen's thought. Other authors contrast and relate his works to those of renowned philosophers and educators. Thus, Ruth Heilbronn, from the Institute of Education at UCL, points out Hansen's convergence with J. Dewey's Philosophy of Education through the notions of habit, growth, situation, moral knowledge and democracy understood as a shared way of life; Anna Pagès, from the Ramon Llul University of Barcelona, explicitly mentions a Philosophy of Voice, latent in Hansen's work, in relation to the hermeneutics of Gadamer and Agamben. Pádraig Hogan, Emeritus of the University of Maynooth (Ireland) and Indrani Bhattacharjee, of Azim Premji University (India), analyse the connections of Hansen's approaches with Gadamer and MacIntyre's formulation of the concept of "tradition", and the thinking of Rabindranath Tagore, respectively.

Other works, of a more existential tone, describe personal episodes, snippets of shared academic life, friendship and human and professional transformation experienced alongside Hansen, which are narrated with the originality and closeness of those who experienced them first-hand. Thus, Caroline Heller of Lesly University describes how she encouraged the "encounter" between Hansen and W. G. Sebald and the importance that this discovery had for his subsequent work; and Cati Bell shares a beautiful account of Hansen's beneficial influence on her professional and personal life, as a result of her involvement in *"The Moral Life of Schools"* project.

In the first chapter of the volume, "The Language of Vocation and the Prospect for Teacher Renewal: An Introductory Essay", De Marzio clearly and concisely outlines the core of the theories Hansen presents in *The Call to Teach*, along with the opportunity to look at them again in this volume. Our time can be described as a period in which mercantilist and performative language has flooded educational institutions, intending to liken them to companies whose only objectives are to optimise "results" in terms of employability and economic benefits. On the contrary, Hansen invites teachers to experience his work from the perspective of vocation, which is why Hansen's thinking and the present volume are timelier than ever.

With Hansen's invitation—and De Marzio in agreement with him—to consider the teaching profession in terms of a vocation, they encourage teachers, and those who are training to become teachers in the future, to share a particular way of understanding their work: working as a teacher means devoting oneself to a profession that has *a high social value* and provides those working as such with a *satisfying experience of personal fulfilment.* "Vocational" teachers do what they like doing —what they were born and trained to do— and, in doing so, they are happy and provide an indispensable and irreplaceable service to society. Hansen does not merely *invite* teachers to join him in this way of looking at teaching, he presents and offers the intellectual and moral tools in order for those who would like to carry

out their teaching work in this way to be able to do so.

Therefore, reading this volume of works edited by De Marzio is also an invitation to reread —or read for the first time, if it is the case— Hansen's works[1]. A highly recommended and rewarding read both for those who are already working as teachers and for those who are training to do so; and, without a doubt, for the university lecturers and professors who are entrusted with their academic and professional training.

Note

[1] A Spanish translation is available: Hansen, D. T. (2001). *Llamados a enseñar.* Idea Books; Hansen, D. T. (2002). *Explorando el corazón moral de la enseñanza.* Idea Books.

María G. Amilburu ■

Bohlin, K. (2020).

Educando a través de la literatura: despertando la imaginación moral en las aulas de secundaria [Teaching Character Education through Literature. Awakening the Moral Imagination in Secondary Classrooms].
Editorial Didaskalos. 286 pp.

This book, mainly geared towards secondary school and further education (*bachillerato*) teachers, takes us inside the field of character education, using literature as a means to help us in this task. Its value mainly lies in helping us to lay foundations on which to develop a teaching approach for using stories in the classroom. In the book, the author establishes two clearly differentiated parts that help said teaching. We have, on the one hand, a theoretical part in which the importance of and need for character education is explained and, on the other, a more practical part in which she discusses her experience in the field through four stories in English that she uses in class.

In the first part, the author, with agile and descriptive language, reveals step by step how we can awaken desire and develop moral imagination in youths through literature and the greatest stories with which said literature provides us, and how these stories become a tool that can help us to see how we can lead a truly fulfilling life. This part comprises three chapters. In the first, Bohlin explains what character education is and how it is understood, describing it as teaching mainly desire and imagination. As such, she seeks to cover topics that are currently being revived in the education field, such as education on character and virtues, suffering, the importance of relationships and reflection, all of which are elements that help to educate the desire and means that equip people with the power to lead a moral life. In the second chapter, the author goes to the core of the stories, showing how they can help to teach, above all, moral imagination. This is where the literature acquires a special role within the educational field, as imagination helps to shape desire. Bohlin illustrates that the narratives are kinds of moral experiments that we conduct within ourselves, given that, throu-

gh them, we can identify with the characters. It is in this identification where we can desire something or reject something, choose it or not. On this point, the author stresses that youths can be helped to grow in moral education, given that the stories help us to choose, with the characters, so as to later implement such aspects in our own lives. Lastly, in the third chapter, another important part of the stories is discussed. These normally entail a story with a complete plot, which allows us to identify with greater clarity what she calls moral 'inflections'. These become the choices that lead to the characters changing their moral objectives and paths. Furthermore, within the stories, a few challenges arise that are moments in time in which the characters experience a crisis in their life project or way of life, and have to change or further adjust their moral life in view of the goal chosen.

The second part comprises an analysis of the four different literary works through which the author seeks to awaken the moral imagination of students, guiding them towards an ethical reflection on the motivations, aspirations and choices of their protagonists. These protagonists are none other than, firstly, Elizabeth Bennet, the main character in Jane Austen's *Pride and Prejudice*, who discovers throughout the story how deluded she has been and the path she has to follow to start leading a real life. Secondly, we have Janie Crawford, the female protagonist of Zora Neale Hurston's novel, *Their Eyes Were Watching God*. This novel is not as well known, but it has great fineness in depicting the life of the protagonist who gradually, through many difficulties, discovers the role that love has in her life. Thirdly, we have Sydney Carton, the redeemed man in Charles Dickens' novel, *A Tale of Two Cities*, with whom we discover the keys to overcoming vices and mediocrity. Lastly, as a counterbalance, we have Jay Gatsby, the hero in Francis Scott Fitzgerald's novel, *The Great Gatsby*, who demonstrates the road to ruin, blinded by dreams that are not grounded to reality. The latter case, a character presented to us as a counterexample, is also of great help, as it demonstrates where the choices and decisions we make can take us.

The approach used by the author may be applied to other literary works that are included in curriculums.

As such, Karen Bohlin shares with us her experience in the educational field, to which she has dedicated a large part of her life, teaching secondary school students through literature, and she shows us how the approach she uses can be applied to other literary works within curriculums. It is, therefore, a book that gives teachers new light in which to work with literature in class and helps to put students on the path to further discover the joys of reading.

Verónica Fernández Espinosa ■