

eISSN: 1989-9742 © SIPS. DOI: 10.7179/PSRI\_2021.38.11 http://recyt.fecyt.es/index.php/PSRI/

## EVALUATION OF THE PROGRAMME CAIXAPROINFANCIA OF EDUCATIONAL SUPPORT AND SCHOOL ACCOMPANIMENT

# EVALUACIÓN DEL PROGRAMA CAIXAPROINFANCIA DE REFUERZO EDUCATIVO Y ACOMPAÑAMIENTO ESCOLAR AVALIAÇÃO DO PROGRAMA CAIXAPROINFANCIA DE REFORÇO EDUCACIONAL E ACOMPANHAMENTO ESCOLAR

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Fecha de recepción: 14.V.2020 Fecha de revisión: 25.V.2020 Fecha de aceptación date: 31.V.2021

#### **KEY WORDS:**

compensatory education; after school programs; at risk students; educational achievements; evaluation methods ABSTRACT: School failure especially affects students living in poverty. There are several compensatory education programs that aim to promote school success in these vulnerable environments, such as the Educational Support and School Accompaniment developed within the CaixaProinfancia programme. In this study we evaluated the impact of this experience considering the results of school performance of adolescents participating in this programme during the academic year 2016-17.

The sample is composed by 2301 young people between 16 and 18 years old from 10 autonomous regions in Spain. Through an  $\alpha d$ -hoc questionnaire, information was obtained for each student on different variables: a) sociodemographic variables, b) school performance and, c) the progress assessment carried out by educators of the programme. To analyse the data, descriptive and inferential statistics have been carried out, considering: a) sociodemographic variables, b) an intermediate variable of school performance created for this study that considers the school trajectory, c) the final results of stage promotion, and d) the evaluations of the educators of the programme.

It has been shown that 2 out of 3 young people living in poverty have significant difficulties in their school trajectory. We found out that a positive correlation between the assessments made by the social entities and the academic performance indicator. 68.2 % of the young people graduated the last year of compulsory education, increasing up to 70,9 % among those who have participated in the academic support programme. In addition, the lower number of dropouts among participants 'of the Caixaproinfancia academic support programme indicates the effect of the personalized accompaniment. Finally, the independence of the results regarding the nationality of young people points towards an effective equity strategy in relation to this variable.

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#### PALABRAS CLAVE:

educación compensatoria; programas después de la escuela; alumnos en riesgo; éxito escolar; métodos de evaluación RESUMEN: Las elevadas tasas de fracaso escolar del alumnado en situación de pobreza han motivado la emergencia de programas de educación compensatoria para apoyar el éxito escolar en los entornos más vulnerables, como es el caso del Refuerzo Educativo del programa CaixaProinfancia. En este estudio evaluamos el impacto de esta experiencia atendiendo a los resultados de rendimiento escolar en los adolescentes participantes en este programa el curso 2016-17.

La muestra está compuesta por 2301 jóvenes de edades entre 16 y 18 años de 10 Comunidades Autónomas de España. Mediante un cuestionario  $\alpha d$ -hoc se obtuvo información para cada estudiante de diferentes variables: a) sociodemográficas, b) de rendimiento escolar, y c) de la valoración de progreso realizada por los educadores del programa. Para analizar los datos se han realizado estadísticos descriptivos e inferenciales, considerando: a) las variables sociodemográficas, b) una variable intermedia de rendimiento escolar creada para este estudio que considera la trayectoria escolar, c) los resultados finales de promoción de etapa, y d) las valoraciones de los educadores del programa.

Como principales resultados se evidencia en la muestra que 2 de cada 3 jóvenes en situación de pobreza tienen dificultades importantes en sus trayectorias escolares, siendo la promoción al finalizar la ESO del 70,9 % e los alumnos que han participado en el Refuerzo Educativo. Se encontró una correlación positiva entre la valoración realizada por los educadores del programa y el rendimiento αcαdémico, indicando la consistencia de los procesos evaluativos internos del programa. A su vez, se identifica la reducción del abandono escolar en los participantes del Refuerzo Educativo respecto de los que no tienen un acompañamiento personalizado. Finalmente, la independencia de los resultados respecto a la nacionalidad de los jóvenes apunta una efectiva estrategia de equidad en relación con esta variable por parte del programa.

#### PALAVRAS-CHAVE:

educação compensatória; programas pósescolares; alunos em risco; sucesso escolar; métodos de avaliação RESUMO: As altas taxas de fracasso escolar entre os alunos que vivem na pobreza lavaram ao surgimento de programas de educação compensatória para apoiar o sucesso escolar nos ambientes mais vulneráveis, como o Reforço Educacional do programa CaixaProinfancia. Neste estudo nós avaliar o impacto dessa experiência levando em consideração os resultados de desempenho escolar dos adolescentes participantes deste programa no ano letivo 2016-17. A amostra é composta por 2301 jovens com idades entre 16 e 18 anos de 10 Comunidades Autónomas de Espanha. Por meio de um questionário αdhoc, foram obtidas informações para cada aluno sobre diferentes variáveis: a) variáveis sociodemográficas. b) desempenho escolar e c) avaliação de progresso feita pelos educadores do programa. Para a análise dos dados, foram realizadas estatísticas descritivas e inferenciais considerando: a) variáveis sociodemográficas, b) uma variável intermediária de desempenho escolar elaborada para este estudo que considera a trajetória escolar, c) os resultados finais da promoção de estágio, e d) as avaliações dos educadores do programa. Como principais resultados, evidencia-se na amostra que 2 em cada 3 jovens em situação de pobreza apresentam dificuldades significativas na sua carreira escolar, sendo a promoção no final do ESO 70,9 % dos alunos que participam no Reforço Educacional. Foi encontrada correlação positiva entre avaliação dos educadores do programa e o desempenho acadêmico, indicando a consistência dos processos de avaliação interna do programa. Ao mesmo tempo, indentifica-se a redução do abandono escolar nos participantes do Reforço Educacional em comparação com os que não têm apoio personalizado. Por fim, a independência dos resultados em relação à nacionalidade dos jovens aponta para uma estratégia de equidade efetiva em relação a esta variável pelo programa.

## 1. Introduction: justification and objectives of the study

In recent decades, a major educational challenge in Spain is lowering the high rates of school failure (Fernández-Enguita et al., 2010; Ministry of Education and Professional Training (MEFP), 2018). Even though this term casts negative connotations on the youths and ignores other actors' responsibility for school success (Marchesi & Pérez, 2003), its use as a quality indicator of educational systems has spread internationally. The two parameters used to measure it are: 1) failure to graduate from compulsory secondary school (abbreviated ESO in Spain), and 2) early dropout (not completing post-compulsory studies by the age of 24).

Regardless of the debate on its meaning, evidence shows that school failure, especially failure to graduate from ESO, threatens the social cohesion and inclusion of many youths (Boada et  $\alpha l$ ., 2010) and is directly related to the intergenerational transmission of poverty (Flores, 2016).

Within this context, one solid experience implemented over much of the country is the Caixa-Proinfancia programme (CPI), which since 2007 has been developing a comprehensive socio-educational action geared at improving the opportunities of children who are vulnerable due to poverty. The services it offers include educational support as a systematised activity implemented in the most populous cities in ten autonomous regions (ARs) while the research was being conducted.

Given the scant evidence of the incidence of school failure in the population quartile with the lowest socioeconomic resources and the effectiveness or significance of educational support programmes, this study has the following objectives:

1) to analyse school failure in secondary school students in situations of poverty who are participating in the CPI programme; and 2) to evaluate the educational support of the CPI programme according to weighted school performance.

## 2. Theoretical framework: school failure and afterschool programmes to support educational success

#### 2.1. Poverty and school failure in Spain

Numerous studies have found correlations between school failure and social vulnerability (Choi & Calero, 2013; OECD, 2014; Save The Children, 2016), a higher risk of unemployment among people with low skill levels (INEE, 2014) and a corelation between low income, parents' low educational level and low expectations and early school dropout (Bernardi & Cebolla, 2014). Even though school failure affects students in all conditions, those living in economic and cultural poverty are particularly hard-hit (OECD, 2016), and socially it is perceived as the outcome of marginality and exclusion (Boada et al., 2010).

In Spain, the data collected by the MEFP (2018) show a gross graduation rate of 79.3 % in ESO and 57.4 % in baccalaureate (BACC) for academic year 2015-16. According to the same sources, in academic year 2016-17, 83.5 % of the students evaluated in any of the four years of ESO at public schools passed, while 67.3 % passed all their school subjects. In BACC, 82.6 % of the students passed the first year and 81.8 % the second year.

Different recent studies show almost 25-point differences among the ARs in graduation from ESO and 28 points in BACC (INEE, 2014; Pérez et al., 2018). In ESO, Asturias, the Basque Country and Cantabria have the highest results (>86%), while Ceuta and Melilla (68.9%), the Balearic Islands (70%) and the Region of Valencia (73%) have the lowest. In turn, the mean age-school year suitability rate in the fourth year of ESO indicates that only 63.9% of the students had not repeated a year, although like the school failure rates, it is uneven in the different ARs (Ruiz et al., 2017), which can be explained by the influence of the socioeconomic setting and the regional resources allocated to education.

It is difficult to establish the real school failure rate by socioeconomic level due to a lack of specific studies that break down the behaviour of the corresponding indicators separately. Generally speaking, an examination of the 2015 PISA report shows that in Spain, 53.5 % of students with the lowest socioeconomic level have repeated some year before the age of 15 (OECD, 2016). In turn, Save The Children (2016) situates the school dropout rate among youths under the age of 24 from the lowest income quintile at 36 % for 2015, while ECAS says that in 2019, 17.3 % of students in Spain dropped out of school before the age of 18.

Other studies say that school failure is higher among foreign students (OECD, 2016) and that women tend to have lower failure rates than men, partly conditioned by different future expectations (Torrents et  $\alpha l.$ , 2018). The correlation between poverty and low school performance can be explained by: a) the limitations on access to social and cultural capital (Fernández-Enguita et  $\alpha l.$ , 2010); b) the negative impact of shortages of basic goods (inhabitability conditions, food or health) on children's cognitive, biological and social development; and c) the stress that affects relational health in the nuclear family (Gil-Flores, 2011; Longás & Cussó, 2018).

#### 2.2. Educational support programmes

The reality of school failure, especially when it is associated with inequality, challenges the school, all socio-educational agents and society in general. The fact that it is chronic questions democratic society's ability to integrate all students into school and achieve successful educational processes that guarantee the right to education and the development of full citizenship (Dubet, 2005; Longás & Cussó, 2018). In the exercise of educational co-responsibility for this problem, strategies have emerged to foster school learning through educational support and accompaniment outside school (Civís & Riera, 2007; Castro et αl., 2007; March & Orte, 2014). Specifically, school accompaniment programmes have been developed, often on the initiative of the local administrations and with the support of the Ministry of Education's Support Reinforcement, Guidance and School Programmes (PROA) (ME, 2011) and the Community Education Plans of Catalonia (Government of Catalonia, 2014), as well as other initiatives from social entities (Abril et al., 2009; Alsinet et al., 2003; Vilar & Longás, 2013).

Generally speaking, these programmes seek to provide contextualised responses to meet children's and adolescents' educational needs and improve their school success by implementing the following strategies: a) common support for schools to strengthen their capacity to attend to all students, with an emphasis on transitions

between stages; b) support for family families to foster educational inclusion by facilitating ordinary tracking and seeking to compensate for educational needs; c) strengthening the educational environment beyond the school; and d) support for school tasks, acquiring basic competences and occasionally helping to balance work and family life. The main educational support activities include private classes, assisted study and reinforcement groups (Longás et  $\alpha l.$ , 2013).

Even though it is imperative to act on all fronts to combat school failure, especially in contexts of poverty, the effectiveness of programmes that seek this goal is questionable. A priori, it is difficult to accept that a few hours of work outside school time can have effects on improving learning. However, in human experience, intensity and significance may be more important than extent. In consequence, we can assume that educational support leads to improved performance thanks to the fact that: a) it facilitates orderly, stable and emotionally healthy environments; b) it boosts confidence and self-esteem; and c) it improves the expectations of students, families and teachers. In any event, these are attributions projected on to educational support as an afterschool activity stemming from the perceptions of the participants in PROA (Manzanares & Ulla, 2012) and in the Fundación Catalunya-La Pedrera's programme to support educational success (Longás et al., 2015).

To date, we have no other studies that provide evidence of the validity of educational support as a resource to lower school failure. Not even the PROA evaluation conducted by Manzanares & Ulla (2012) answers this question. This evaluation is a benchmark because of the importance and scope of the programme, with a sample of 273,461 participants between academic years 2005-06 and 2010-11, given that it focuses on the evaluation of the programme's inputs and processes, results on the participants' satisfaction and their self-perception of efficacy. However, in reference to other more standardised indicators, it only studies the data on promotion by stage (89.86 % in primary school and 64.70 % in ESO in the fourth-year cohort in academic year 2010-11).

### 2.3. Educational support of the CaixaProinfancia programme

The CPI programme is an initiative of Fundación "la Caixa", which has been promoting a network of public-private collaboration since 2007 with the goal of implementing a comprehensive socio-educational action to improve the opportunities of children who are vulnerable because of poverty. It

is being implemented in the most populous areas of Spain via the participation of 134 local administrations and 432 third-sector entities organised into 177 local networks (PSITIC, 2013).

The programme is targeted at children and adolescents (ages from birth to 18 years old) and their families whose income is lower than the relative poverty threshold according to the IPREM index. Based on a social assessment and a determination of the family's needs, renewable annual working plans are developed which provide access to support goods and services organised as sub-programmes provided by the partner entities. The programme is implemented by organising local cooperation networks which also involve social services and schools. The network ensures that each participating family has social support and procures the portfolio of services comprised of the sub-programmes on educational support, education in leisure and free time, psychotherapeutic support, positive parenting workshops and family spaces for children from birth to 3 years old. In 2017, a total of 62,254 children and adolescents participated in the programme, 35,884 of whom were students in different years in primary school, ESO, baccalaureate and mid-level vocational training programmes (MVTP).

The educational support sub-programme (Longás et  $\alpha l.$ , 2013) serves almost 80 % of the children and adolescents between the ages of 6 and 18 who participate in the programme. It is organised in different modalities with 5 hours per week after the school day is over: open classroom (12-15 students), study groups (4-5 students) and individualised support (1-2 students). Plus, speech therapy and psychomotor support is provided when needed. It aims to provide comprehensive educational action not exclusively tied to the curricular contents, as reflected by the term "educational" in its name. The professionals who provide the educational support systematically track each participant and make a quarterly evaluation of them based on their performance during the activity.

Given the distribution and scope of this initiative, it is small given the number of potential recipients in the entire country, yet we believe that studying it is valuable for two reasons. First, in Spain, 30.3 % of the population ages birth to 18 are at risk of poverty and social exclusion (EAPN, 2020) and there are hardly any specific studies on the incidence of school failure in this population sector. Secondly, the systematisation of the programme enables us to evaluate its impact and discuss several controversies caused by educational support as a type of activity.

#### 3. Methodology

A transversal study was conducted via descriptive and inferential statistical analyses considering the school performance and sociodemographic variables of the youths aged 16 to 18 who participated in the CPI programme in academic year 2016-17.

#### 3.1. Sample

The sampling was done via 183 partner entities of the CPI programme which attend to adolescents in different ARs where the programme was consolidated. They filled out an ad-hoc questionnaire with data on all the participants born in 1999, 2000 and 2001 included in the programme during academic year 2016-17. In this way, we collected information on youths who, regardless of the number of repeated years at school, should have been in post-compulsory school (second year for the 1999 cohort and first year for the 2000 cohort) or their fourth year of ESO (2001 cohort).

The sample was comprised of 2,301 whose families living in relative poverty (according to the IPREM index). Seventy-eight percent of them were participating in the educational support sub-programme and 22 % in other activities. Their distribution by age was: 51.6 % were born in 2001, 32.6 % were born in 2000 and 15.7 % were born in 1999. In terms of their year at school, 83.1 % were in ESO (1.4 % in the first year, 15.6 % in the second year, 28.6 % in the third year and 37.5 % in the fourth year), 10.9 % were in BACH (8.7 % in the first year and 2.2 % in the second year) and 5.9 % were in MVTP. Their distribution by AR is as follows: 23.6 % in Andalusia, 20.5 % in Catalonia, 10.4 % in the Canary Islands, 13 % in Madrid, 12.3 % in Aragon, 11.5 % in the region of Murcia, 3.3 % in the region of Valencia, 2.6 % in the Balearic Islands, 1.9 % in the Basque Country and 0.8 % in Galicia. Regarding sex, 49.9 % were female and 50.1 % were male, and 67.3 % had Spanish nationality. According to the variables analysed, the sample size did not vary as we had 100 % of the values for each youth.

#### 3.2. Instruments

An ad-hoc questionnaire was developed to collect: a) sociodemographic data: date of birth, social entity, autonomous region, sex, nationality and sub-programme in which they were participating; and b) information on academic performance: number of classes failed in academic year 2015-16, number of classes failed in academic year 2016-17, number of years repeated during their school career, average marks at the end of

academic year 2016-17 (Unsatisfactory / Satisfactory / Good / Notable / Excellent) and status at the end of academic year 2016-17 (Drop out / Repeat / Promotion). We also collected the performance evaluations of the participants in the educational support programme (n=1795) made by the educators from the social entities following the systematised model (Longás et al., 2013). Specifically, the following four variables were evaluated with the respective predetermined indicators using the scale Highly satisfactory, Satisfactory, Acceptable, Unsatisfactory: overall (estimation of the attainment of the goals set in the individual working plan and family compliance), organisation (care of space and material, use of the calendar, attendance and capacity of organisation/autonomy to do the tasks), basic competences (observed improvement in the acquisition and development of language, logical-mathematical and social competences) and integration (keeping track of schoolwork, attendance, engagement and family participation in school).

The questionnaire was developed based on the properties of survey techniques and was validated via a content analysis by a group of experts comprised of 3 researchers (from the fields of methods, psychology and education at the University of Barcelona and Ramon Llull University) and 3 reference professionals from the programme itself. Because this is not a measurement scale, no other psychometric studies were conducted.

#### 3.3. Procedure

The participating entities were contacted to provide the data on the youths who were part of the target population of the study. Once the ad-hoc questionnaire had been filled out online, the data were entered into a database.

With the goal of not reducing the explanation of school performance to average final marks or whether or not the student was promoted to the next year, a variable was created for this research which we called <code>academic performance</code>, which also considers the performance information on each youth based on their progression. This new variable allows the sample to be classified according to a range of 3 to 80 points, where the top value indicates the most successful trajectory and highest performance.

For this reason, we called this new intermediate variable *trajectory*. To ensure the content validity, structure and weighting of the academic performance and *trajectory* variables, they were subject to judges' opinions (individual consultation with the same group of experts who participated

in validating the questionnaire and subsequent discussion in a focus group).

To calculate academic performance, equivalences were established (Table 1) that enabled the categorical variables collected in the questionnaire to be weighted in order to explain each

student's school trajectory: 1) number of subjects failed the previous year, 2) the same information for the current year, 3) years repeated throughout their school career, 4) average marks at the end of the school year and 5) status at the end of the school year (promotion, repetition or drop-out).

Nr.	Indicator	Assessment criterion	Value
		5 or more failed subjects	1
		4 failed subjects	2
	Number of subjects failed the previous	3 failed subjects	3
1	year (2015-16)	2 failed subjects	4
		1 failed subject	5
		O failed subjects	6
		5 or more failed subjects	1
		4 failed subjects	2
_	Number of subjects failed for the	3 failed subjects	3
2	current year (2016-17)	2 failed subjects	4
		1 failed subject	5
		O failed subjects	6
	V	2 or more repeated courses	1
3	Years repeated throughout their school	1 repeated course	3
	career	O repeated courses	5
		Unsatisfactory (0-4,9)	1
		Satisfactory (5-5,9)	2
4	Average marks at the end of the school	Good (6-6,9)	3
	year	Notable (7-8,9)	4
		Excellent (9-10)	5
		Drop-out	1
5	Status at the end of the school year	Repetition	2
	,	Promotion	4
		Increases the number of failed subjects of the previous	
	Performance evolution (Estimated by	course	
6	the differences between the indicator 1	Equal number of failed subjects (except if they do not have any failed).	0
U	and indicator 2)	Decreases the number of failed subjects or they do not	1 4
	and mulcator 2)	have any failed subject in any of the two academic years (2015-16 & 2016-17).	4

Once these values were assigned, an intermediate variable we called *trajectory* was calculated, conceptualised as follows:

Trajectory = Indicator 2 + Indicator 3 + Indicator 4 + Indicator 6

The academic performance variable for each youth was calculated using the following formula (Figure 1): Academic performance = Trajectory \* Indicator 5

To estimate both the *trajectory* and academic performance, coefficients could be used that

weighted each member of the equations ( $\beta_{ij} \neq 0$ ) to ascertain the influence of each of them.

However, we discarded this possibility given that it meant that those variables with associated weights had to remain stable for other samples in subsequent studies. Having eliminated the possibility of longitudinal fluctuations, we chose to assume a weighting of one (1) for all the variables to be able to make comparisons among different groups and years.

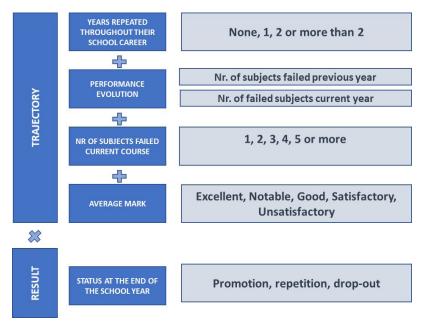


Figure 1. Graphical representation of the calculation of the academic performance variable.

Source: Own elaboration.

To analyse the information, we proceeded to the corresponding descriptive analysis and used non-parametric estimation techniques to evaluate the relationship between performance and the variables collected, as the adjustment of the distribution was not normal. In all cases, some routines and libraries from R were used, as well as IBM SPSS version 24.0. In all cases in which the null hypothesis was rejected via the statistical procedures, we calculated the effect size in order to attribute it to a given intensity.

#### 4. Results

#### 4.1. Analysis of school failure

The results of promotion distributed by level of education and year of birth are shown in Tables 2 and 3 (ESO and post-compulsory education, respectively). Of the total sample (n= 2,301), 63.9 % were promoted, 14.8 % had to repeat the year and 8.8 % dropped out of formal education, while

12.5 % were not sure of their situation. The promotion rate of students finishing a stage is 68.2 % in ESO, 80 % in BACH and 64.7 % in MVTP. The gross graduation rate from the fourth year of ESO was 49.6 %, and from the second year of BACH it was 18.2 %. Calculation of the age-school year suitability rate (the student is studying in the year they should based on their age) shows that 32.7 % of the 2001 cohort was in the fourth year of ESO, 25.8 % of the 2000 cohort was in the first year of BACH or MVTP and 32.0 % of the 1999 cohort was in the second year of BACH or MVTP. The effect of cumulative repetitions is important, given that 35 % of the sample has repeated 2 or more years (28.4 % from 2001, 29.6 % from 2000 and 47 % from 1999). The average drop-out rate is 8.8 % of the sample (7.5 % from 2001, 7.7 % from 2000 and 15.2 % from 1999), with a high incidence (79.4 % of all drop-outs) among those who have repeated at least 2 years or were forced to repeat a year for the second time.

		1º ESO			2º ESO			3º ESO			4º ESO	
	Support	Without Suppor	Total	Support	Without Suppor	Total	Support	Without Suppor	Total	Support	Without Suppor	Total
	n (%)	n ( %)	n ( %)	n ( %)	n ( %)	n (%)	n ( %)	n ( %)	n ( %)	n ( %)	n ( %)	n (%)
						Year 2001						
Promotion	11 (37.9)	0 (0)	11 (33.3)	133 (53)	22 (41.5)	155 (51)	275 (72.8)	43 (51.2)	318 (68.8)	215 (76)	66 (62.3)	281 (11)
Repetition	10 (34.5)	1 (25)	11 (33.3)	49 (19.5)	9 (17)	58 (19.1)	54 (14.3)	12 (14.3)	66 (14.3)	40 (14.1)	6 (5.7)	46 (10)
Drop-out	4 (13.8)	3 (75)	7 (21.2)	38 (15.1)	6 (11.3)	44 (14.5)	18 (4.8)	7 (8.3)	25 (5.4)	8 (2.8)	5 (4.7)	13 (4)
Unknown	4 (13.8)	0 (0)	4 (12.1)	31 (12.4)	16 (30.2)	47 (15.5)	31 (8.2)	22 (26.2)	53 (11.5)	20 (7.1)	29 (27.4)	49 (4)
						Year 2000	,					
Promotion				18 (47.4)	7 (38.9)	25 (44.6)	81 (57.9)	10 (38.5)	91 (54.8)	192 (70.3)	39 (62.9)	231 (69
Repetition				9 (23.7)	1 (5.6)	10 /17.9)	23 (16.4)	3 (11.5)	26 (15.7)	46 (16.8)	7 (11.3)	53 (15.8
Drop-out				8 (21.1)	1 (5.6)	9 (16.1)	21 (15)	3 (11.5)	24 (14.5)	5 (1.8)	3 (4.8)	8 (2.4)
Unknown				3 (7.9)	9 (50)	12 (21.4)	15 (10.7)	10 (38.5)	25 (15.1)	30 (11)	13 (21)	43 (12.8
						Year 1999						
Promotion							14 (56)	2 (40)	16 (53.3)	63 (58.9)	14 (42.4)	77 (55
Repetition							2 (8)	1 (20)	3 (10)	13 (12.1)	4 (12.1)	17 (12.1
Drop-out							7 (28)	1 (20)	8 (26.7)	23 (21.5)	5 (15.2)	28 (20
Unknown							2 (8)	1 (20)	3 (10)	8 (7.5)	10 (30.3)	18 (12.9
						Total						
Promotion	11 (37.9)	0 (0)	11 (33.3)	151 (52.2)	29 (40.8)	180 (50)	370 (68.1)	55 (47.8)	425 (64.6)	470 (70.9)	119 (59.2)	589 (68.2)
Repetition	10 (34.5)	1 (25)	11 (33.3)	58 (20.1)	10 (14.1)	68 (18.9)	79 (14.5)	16 (13.9)	95 (14.4)	99 (14.9)	17 (8.5)	116 (13
Drop-out	4 (13.8)	3 (75)	7 (21.2)	46 (15.9)	7 (9.9)	53 (14.7)	46 (8.5)	11 (9.6)	57 (8.7)	36 (5.4)	13 (6.5)	49 (5.7
Unknown	4 (13.8)	0 (0)	4 (12.1)	34 (11.8)	25 (35.2)	59 (16.4)	48 (8.8)	33 (28.7)	81 (12.3)	58 (8.7)	52 (25.9)	110 (12.

		1r BTX			2n BTX			CFP		
	Support	Without Support	Total	Support	Without Support	Total	Support	Without Support	Total	
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	
				Year 20	00					
Promotion	68 (73,1)	22 (71)	90 (72,6)				38 (79,2)	10 (45,5)	48 (68,6)	
Repetition	15 (16,1)	5 (16,1)	20 (16,1)				5 (10,4)	1 (4,5)	6 (8,6)	
Drop-out	6 (6,5)	2 (6,5)	8 (6,5)				4 (8,3)	5 (22,7)	9 (12,9)	
Unknown	4 (4,3)	2 (6,5)	6 (4,8)				1 (2,1)	6 (27,3)	7 (10)	
				Year 19	99					
Promotion	33 (63,5)	14 (58,3)	47 (61,8)	28 (87,5)	12 (66,7)	40 (80)	31 (67,4)	9 (45)	40 (60,6)	
Repetition	10 (19,2)	4 (16,7)	14 (18,4)	2 (6,3)	3 (16,7)	5 (10)	7 (15,2)	0 (0)	7 (10,6)	
Drop-out	6 (11,5)	3 (12,5)	9 (11,8)	0 (0)	0 (0)	0 (0)	6 (13)	4 (20)	10 (15,2)	
Unknown	3 (5,8)	3 (12,5)	6 (7,9)	2 (6,3)	3 (16,7)	5 (10)	2 (4,3)	7 (35)	9 (13,6)	
				Total						
Promotion	101 (69,7)	36 (65,5)	137 (68,5)	28 (87,5)	12 (66,7)	40 (80)	69 (73,4)	19 (45,2)	88 (64,7)	
Repetition	25 (17,2)	9 (16,4)	34 (17)	2 (6,3)	3 (16,7)	5 (10)	12 (12,8)	1 (2,4)	13(9,6)	
Drop-out	12 (8,3)	5 (9,1)	17 (8,5)	0 (0)	0 (0)	0 (0)	10 (10,6)	9 (21,4)	19 (14)	
Unknown	7 (4,8)	5 (9,1)	12 (6)	2 (6,3)	3 (16,7)	5 (10)	3 (3,2)	13 (31)	16 (11,8)	

The average marks of the sub-sample for which we have this information (n= 1777) at the end of academic year 2016-17 were as follows: 1 % Excellent, 11.3 % Notable, 29.9 % Good, 28.5 % Satisfactory and 29.3 % Unsatisfactory, such that 70.7 % passed and 12.3 % earned an overall mark of notable or excellent.

As an indicator of difficulties in their trajectory, Table 4 shows an analysis of the subjects that each youth failed. We see a certain improvement in the evolution of this indicator given that in academic year 2016-17, 40.5 % of the sample failed no subjects, compared to 37.1 % in academic year 2015-16, although the percentage of youths (more than 30%) who failed 3 or more subjects remained the same in both academic years.

Couse			Par	ticipants by numb	er of subjects fa	ailed	
	n	0	1	2	3	4	5 or more
2015-16	1808	670 (37,1 %)	215 (11,9 %)	299 (16,5 %)	177 (9,7 %)	135 (7,5 %)	312 (17,3 %)
2016-17	1875	759 (40,5 %)	227 (12,1 %)	237 (12,7 %)	163 (8,7 %)	139 (7,4 %)	350 (18,6 %

The academic performance variable was analysed in the smallest sub-sample (n=1536), as not all the data needed were available. Table 5 shows

the descriptive statistics of this variable; despite its ordinal characteristics, the mean and deviation are included to further clarify it.

Table 5. Statistical description of the academic performance variable										
Academical	n	Min.	Max.	Q <sub>1</sub>	Md (Q <sub>2</sub> )	Q <sub>3</sub>	M. (DS)			
performance	1536	3	80	14	44	64	40,11 (25,67)			
Source: Own el	aboration.									
Note: Min.: mini quartile 3; M.: m					; Md (Q <sub>2</sub> ): M	edian o	quartile 2; Q <sub>3</sub> :			

The results of the bivariate analyses between academic performance and the sociodemographic variables (Table 6) show that there is a statistically

significant relationship with the autonomous region where the student lives and their sex.

Table 6. Non-Parametrical tests between
academical performance and sociodemographic
variables

	Non- Parametrical tests	df	р	Effect size
Autonomous region	H=30,940	9	p<,001	V <sub>Cr-,</sub> 047
Sex	U=267660,5; Z= 3,127	-	p=,002	r=,079
Nacionality	U=262458 Z= 0,116	-	p=,907	-
Years of permanence in the CPI programme	rho <sub>xy</sub> = -0,001		p=0,658	-
Source: Own elabor	ation.			

The differences in academic performance among the ARs can be interpreted in the box plot in Figure 2. There are no outliers in the entire sample, and even though the effect size in the direction of the relationship is small, it shows mean top performance in the ARs of the Balearic Islands, followed by Catalonia, Andalusia and the Canary Islands, with Aragon and Galicia being the ARs with the lowest results. The greatest variability (longer boxes) is found in Andalusia and Galicia. Given the differences among the sample sizes in the different ARs, this comparison should be interpreted cautiously.

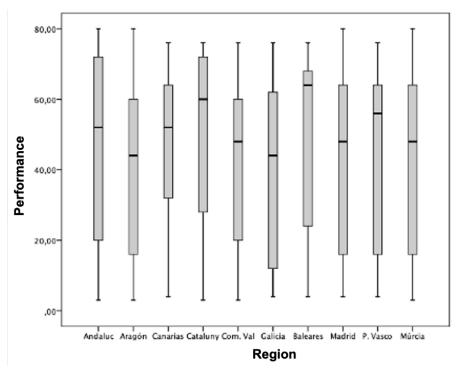


Figure 2. Box Plot of the academic performance by autonomous region. Source: Own elaboration. Note: Andaluc.: Andalusia, Canarias: Canary Islands, Cataluny.: Catalonia, Com. Val.: Region of Valencia, Baleares: Balearic Islands, P. Vasco: Basque Country

In terms of the other sociodemographic variables related to the *performance* variable (Table 6), in sex we find that females perform better than males, although the intensity of the effect is very low. There is no statistically significant relationship in the case of *nationality* (although the tendency shows that non-Spanish children show slightly higher performance) or with the number of *years* in the programme.

#### 4.2. Evaluation of educational support

Even though the results among the participants in the educational support programme at the end of the year were higher than those in the sub-sample that did not participate in this sub-programme, the difference is not statistically significant. Likewise, the participants in the educational support studying in the right year at school for their age or in the year below it (meaning that they have repeated

a total of 1 year) reach relatively high promotion rates: 74.4 % for the 2001 cohort, 74.2 % for the 2000 cohort and 72.8 % for the 1999 cohort.

Regarding the evaluation of each participant in the educational support programme by the educators from the entities (Table 7), it is noteworthy that 75 % of the scores are satisfactory or highly satisfactory in the overall assessment, and that for all variables the number of participants receiving an unsatisfactory evaluation was 5-6 %. We found a significant positive relationship between academic performance and the evaluations of the educational support educators (moderate effect intensity), such that higher performance corresponds to a higher evaluation, with a moderate effect intensity. We should mention that in all cases the distributions were skewed towards Highly Satisfactory and Satisfactory. Figure 3 shows this graphically represented.

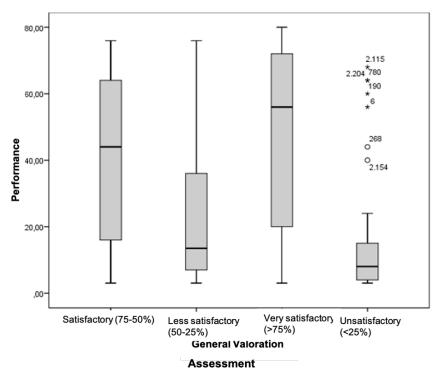


Figure 3. Box Plot of the academical performance by General Assessment.

Source: Own elaboration.

Variables		Assessment					Non-parametrical tests with performance			
	n	Very Satisfactory	Satisfactory	Less satisfactory	Unsatisfactory	Н	df	р	V <sub>Cr</sub> =,198	
General	1795	567 (31,5 %)	778 (43,5 %)	359 (20 %)	91 (5 %)	200,567	3	p<,001	V <sub>Cr</sub> =,199	
Organization	1795	578 (32,2 %)	762 (42,4 %)	365 (20,4 %)	90 (5 %)	197,773	3	p<,001	V <sub>Cr</sub> =,198	
Competence	1795	477 (26,6 %)	794 (44,2 %)	429 (23,9 %)	95 (5,3 %)	242,312	3	p<,001	V <sub>Cr</sub> =,219	
Integration	1795	577 (33,1 %)	757 (42,2 %)	360 (20 %)	101 (5,6 %)	171,541	3	p<,001	V <sub>Cr</sub> =,184	

#### 5. Discussion and conclusions

In Spain, there is little information on school failure among youths living in relative poverty and few approaches using the competence-based learning that PISA analyses or extrapolations of general INEE statistics. Even though the sample has limitations because it is not random and is conditioned by inclusion in the CPI programme, our study is valuable because it shows specific results on school failure in secondary students living in poverty.

The relationship between child poverty and school performance (objective 1) seems clear

considering the differences in gross graduation rates in the sample (49.6 % in ESO and 18.2 % in BACH) compared to the national average (79.3 % in ESO and 57.4 % in BACH). The age-school year suitability rate (between 25.8 % for the 2000 cohort and 32.7 % for the 2001 cohort) is almost half the national average (63.9 % for those born in 2001). Likewise, repetitions affect 63.8 % of the sample, with 35 % of the youths having repeated 2 or more years. Based on our sample, we can conclude that two out of three youths living in relative poverty have serious difficulties in their school trajectories and repeating a second year serves as the gateway to drop-out in many cases. These

results are coherent with the 53.3% of repetitions before the age of 15 in adolescents with the lowest economic level reported by PISA (OECD, 2016).

There are no cumulative data to precisely estimate the incidence of school drop-out by cohort. In academic year 2016-17, it is 8.8 % for the entire sample, particularly among students who have repeated 2 or more years, and it reaches 30.4 % for those born in 1999. This rate should be interpreted cautiously because this is not a diachronic study and the sample is not random; however, it aligns fairly accurately with the 36 % drop-out rate reported by Save The Children (2016), which stated that a critical juncture is the transition at the end of ESO and the end of post-compulsory studies.

We believe that the academic performance variable we have constructed behaves coherently with the difficulties pointed out by the standardised rates and has the benefit of including indicators on the school trajectory which are significant in educational support and useful for research. In turn, it allowed us to study correlations with sociodemographic variables.

With regard to the differences in school performance by AR, we should state that the limitations of the sample prevent us from drawing conclusions, with the understanding that the differences may be due to contextual, cultural or school factors, as noted by Gil-Flores et  $\alpha l.$  (2011) and Torrents et  $\alpha l.$  (2018). In any case, more data are needed on children's school results disaggregated by region as well as socioeconomic levels, because mean values covering large territorial units like a country, AR or city are not very useful in guiding public policies. Regarding the higher performance detected in the females in the sample,

though moderate, this does concur with other studies (Delgado et al., 2010). The independence of academic performance with the youths' nationality endorses the programme's equity.

In terms of the evaluation of the educational support (objective 2), the participants' results are higher than those in the sub-sample that did not participate. An impressive 70.9 % of the group in their fourth year of ESO were promoted, which is equivalent to the average results of the group from the ARs with the lowest scores (Pérez et al., 2018) and higher than what might be expected of this population sector given the aforementioned reports. In turn, the lower school drop-out rate among the participants in the educational support programme may indicate the effects of personalised support.

We would also like to highlight the relationship between the evaluations made by the educational support educators and  $\alpha c \alpha demic\ performance$ , as an indicator of the internal quality of the sub-programme because of their coherence with the external evaluations made by the schools.

We conclude by stressing the need to continue research that helps pinpoint the incidence of school failure in students living in conditions of poverty and its impact from the equity perspective. Given the relatively low cost of programmes to support school success like the one analysed and the ease of transferring them, we should continue to study the factors that condition their effectiveness. Judging from the design of the programme evaluated, we can anticipate the importance of the educational support community, support in transitions between stages and partnerships between schools and social entities.

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#### HOW TO CITE THE ARTICLE

Longás Mayayo, J., Cañete-Massé, C., Cussó-Parcerisas, I., de Querol Duran, R., & Guàrdia-Olmos, J. (2021). Evaluación del programa CaixaProinfancia de refuerzo educativo y acompañamiento escolar. Pedagogía Social. Revista Interuniversitaria, 38 xx-xx. DOI:10.7179/PSRI\_2021.38.11

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