

Educational inspection and school improvement: analysis of its functions from the perspective of practicing inspectors

Inspección educativa y mejora escolar: análisis de sus funciones desde la perspectiva de los inspectores en ejercicio

教育检查和学校改进：从执业检查员的角度分析其职能

Инспекция образования и совершенствование школ: анализ ее функций с точки зрения практикующих инспекторов

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Dates · Fechas

Received: 2024.07.25

Accepted: 2024.11.14

Published: 2024.12.30

How to Cite this Paper · Cómo citar este trabajo

Martínez, M. C., Romero, M. A., García-Valdecasa, M., & Gavín, O. (2024). Educational inspection and school improvement: analysis of its functions from the perspective of practicing inspectors. *Publicaciones*, 54(2), 113–129. <https://doi.org/10.30827/publicaciones.v54i2.30476>

Abstract

Educational environments have changed in many ways over the last decades, in terms of organisational conditions, roles, methodological strategies implemented, spaces and resources used. The participants in the study were 118 inspectors from Andalusia (Spain). The questionnaire to assess the opinions expressed by education inspectors, was used as an instrument. The aim was to determine the analysis of educational guidance in compulsory education by the Education Inspectorate in Andalusia (Spain). The results showed the coefficients of determination Improved inspection intervention (R²= .315); Actions that favour the permanence of students in the educational system (R²= .293); Interrelations with community members (R²= .413); Use of technological resources (R²= .102); Participation of the school community and integration of ICT (R²= .317), explained by the variable Improvement of the tutorial action and educational guidance that form the model. The practical implications of the work advocate the importance of technological resources for the correct performance of the inspection function, while at the same time highlighting how inspectors promote the use of ICT in schools.

Keywords: educational participation, educational inspection, educational improvement, educational technology, educational guidance.

Resumen

Los escenarios educativos han sufrido múltiples cambios en las últimas décadas, en cuanto a las condiciones organizativas, los roles, las estrategias metodológicas implementadas, los espacios y los recursos utilizados. Los participantes del estudio fueron 118 inspectores de Andalucía (España). Se utiliza como instrumento el cuestionario para valorar las opiniones emitidas por los inspectores de educación. El objetivo fue determinar el análisis de la orientación educativa docente en las enseñanzas obligatorias por parte de la Inspección de Educación en Andalucía (España). Los resultados mostraron los coeficientes de determinación Intervención de la inspección para la mejora (R²= .315); Acciones que favorecen la permanencia de los estudiantes en el sistema educativo (R²= .293); Interrelaciones entre los miembros de la comunidad (R²= .413); Uso de recursos tecnológicos (R²= .102); Participación de la comunidad escolar e integración de las TIC (R²= .317), explicado por la variable de Mejora de la acción tutorial y orientación educativa, que forman el modelo. Las implicaciones prácticas del trabajo abogan por la importancia que los medios tecnológicos tienen para el correcto desempeño de la función inspectora, al tiempo que se evidencian formas en las que los inspectores potencian el uso de las TIC en los centros educativos.

Palabras clave: inspección educativa, mejora escolar, orientación escolar, participación educativa, tecnología educativa.

摘要

近几十年来,教育环境在组织条件、角色、实施的方法策略、使用的空间和资源等方面发生了多重变化。这项研究的参与者是来自安达卢西亚(西班牙)的 118 名检查员。研究采用问卷调查的方式,对教育督学发表的意见进行评估。目的是确定安达卢西亚(西班牙)教育检查机构对义务教育阶段教育指导的分析。结果显示,检查干预改进($R^2=.315$)、有利于学生在教育系统中长期学习的行动($R^2=.293$)、社区成员之间的相互关系($R^2=.413$)、技术资源的使用($R^2=.102$)、学校社区的参与和信息通信技术的整合($R^2=.317$)的确定系数,由构成模型的改进辅导行动和教育指导变量解释。这项工作的实际意义在于倡导技术手段对于正确履行检查职能的重要性,同时强调了检查员在学校加强使用信息与传播技术的方法。

关键词:教育参与、教育检查、教育改进、教育技术、教育指导。

Аннотация

За последние десятилетия образовательная среда во многом изменилась с точки зрения организационных условий, ролей, реализуемых методических стратегий, используемых пространств и ресурсов. В исследовании приняли участие 118 инспекторов из Андалусии (Испания). В качестве инструмента использовалась анкета для оценки мнений, высказанных инспекторами образования. Цель исследования заключалась в определении анализа педагогического руководства в системе обязательного образования, проводимого инспекцией образования в Андалусии (Испания). Результаты показали, что коэффициенты детерминации Улучшение инспекционного вмешательства ($R^2=.315$); Действия, способствующие постоянству учащихся в системе образования ($R^2=.293$); Взаимодействие с членами сообщества ($R^2=.413$); Использование технологических ресурсов ($R^2=.102$); Участие школьного сообщества и интеграция ИКТ ($R^2=.317$), объясняются переменной Улучшение тьюторских действий и образовательного руководства, которые формируют модель. Практическое значение работы подтверждает важность технологических ресурсов для правильного выполнения инспекционной функции и в то же время подчеркивает, как инспекторы способствуют использованию ИКТ в школах.

Ключевые слова: образовательное участие, образовательная инспекция, совершенствование образования, образовательные технологии, образовательное руководство.

Introduction

Educational inspection is one of the most important activities for the fulfilment of the objectives proposed in the structure of the education system. It is responsible for ensuring the correct functioning of educational institutions in accordance with the guidelines set by the educational administration (Ergün, 2020; Frades, 2019). This position, which is associated with the accountability (Hutchings, 2021) of educational institutions, seeks to ensure that what is established by educational policy is complied with. The aim is to ensure equal opportunities and a certain homogeneity in the operation of schools in accordance with quality parameters. In this manner, the design of educational policy seeks to guarantee that the instructional processes, as well as other issues that directly and indirectly affect student learning, promote the emergence of significant and globalising learning situations that have an impact on high student performance. The development of different actions inside and outside school may be related to some problems that suggest the need to substantially improve some aspects, areas and basic competences of the teaching-learning model. From a school improvement approach, figures external to the educational institutions emerge who are in charge of ensuring the proper functioning of schools, while ensuring that they comply with educational policy. However, this issue is not free of difficulties that hinder and hamper the hard work of educational inspectors. The main problems arising from school supervision will be related to different social, academic, contextual and economic factors (Moreno-Guerrero, 2019; Zhou et al., 2018). In turn, school coexistence (Ananogstopoulus et al., 2016; Milian & Davies, 2017) and the difficulties of schools in personalising teaching-learning processes and generating curricular flexibility (Zheng & Thomas, 2022). These will be positioned as problem areas to which the inspection will have to respond and try to dynamise so that the organisational structure is able to cope with the different social demands.

Along these lines, authors such as Ehren (2010) point out the benefits of educational inspection for the proper functioning of schools. In this way, he considers that the existence and intervention of school inspection can produce significant improvements in the quality of education when its action serves as a guide to delimit the lines of action, generate feedback on the actions to be taken and establish agreements with management teams on the aspects to be improved. Bryce et al. (2018) also argue that the function of evaluating the functioning of schools contributes to making them more effective, as they try to adjust to changes in educational policy and social developments. However, educational inspection and the emphasis on accountability can also have a number of negative effects. De Wolf and Janssens (2007) argue that accountability can lead to efforts on the part of the school to show a different picture from the reality. They argue that accountability can lead to efforts on the part of the school to show only the positive data that the inspectorate must monitor and even to false documentation, the transformation of instructional processes into test preparation processes, the generation of anxiety and stress among teaching staff and management due to uncertainty and the situation of being evaluated, and the invisibility of underperforming schools.

Other authors (AlKutich & Abukari, 2018) have focused on exploring the impact of inspectors' actions on teacher professional development; and, consequently, on teaching and learning processes, by pointing out the benefits of inspection. In particular, the feedback that inspectors provide to teachers encourages the renewal of teaching practices and guides them to introduce innovations in teaching processes. However, this encouragement may also produce some discomfort among those teachers who

are more reluctant to change or who show disagreement between theory and the particular reality of the school.

In view of the above, the purpose of this research is to examine the existing relationships between some of the essential functions attributed to the inspectorate: actions that promote the students' retention in the education system; inspection intervention for improvement; improvement of tutorial action and educational guidance; interrelationships between members of the community; participation of the school community and integration of ICT; use of technological resources.

Based on the initial approach, the objective of the research is to analyse educational guidance in compulsory education by the Education Inspection in Andalusia.

The following hypotheses are considered:

Any modern educational organisation works under the principle of cooperation. The inspection, which carries out actions related to the supervision of the functioning of schools, teaching practice or the management function in a relational and collaborative way, will contribute to the development of a common and effective educational project (Brown et al., 2020).

The reality of leading organisations has changed, and the educational inspection must also do so by designing actions as a team with schools (Duru & Balkus, 2017).

- H1: The improvement of educational intervention will be determined by tutorial action and educational guidance.

Supervision, as the main function of the inspectorate, defines the inspector's relationship with the school. In this regard, he/she is not just a watchdog, but must exercise a shared and relational function in favour of improving the system (Esteban Frades, 2019).

- H2: The improvement of tutorial action and guidance favours the permanence of students in the education system.
- The development of absenteeism depends on multiple factors, including those related to the educational institution, where guidance and tutorial action are key to redressing the situation (González, 2014).
- H3: The effectiveness of tutorial action and guidance by the educational inspection will be determined by the relationships established between all members of the educational community.

Access to virtual education and new technologies facilitates students' access to quality education, with pedagogical mediation, determined by motivational factors (Mora & Hernández, 2017).

- H4: The use of technological resources by the inspection will not have an impact on the students' retention in the education system. However, it will facilitate a more fluid communication channel.

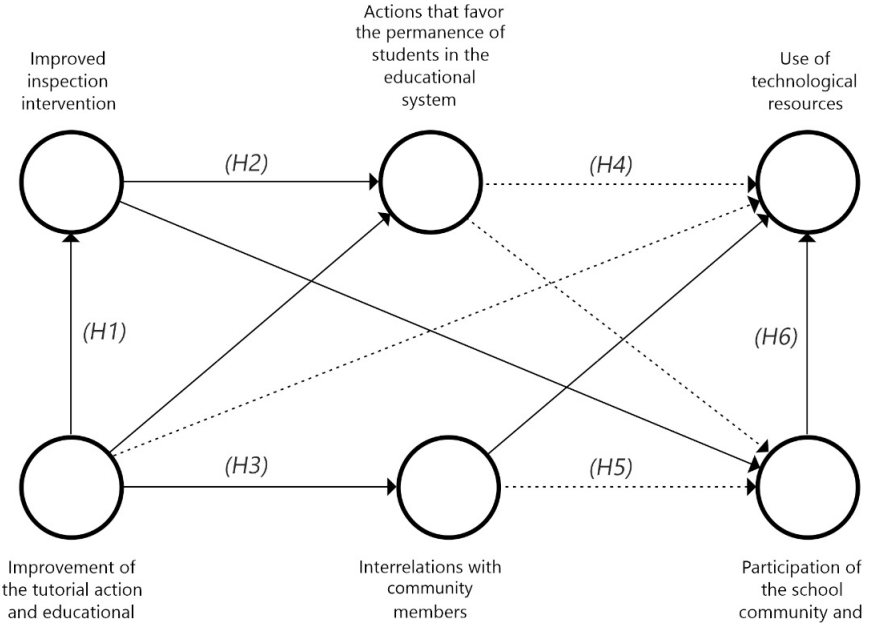
Social relations are built and shaped through shared organisational knowledge that is characterised by the fact that it is produced by and applicable to people, which is why the use of ICT is not excluded, but on the contrary tends to generalise more knowledge (Perrow, 1992).

- H5: The relationships established between all educational agents, teamwork, joint construction and transmission of knowledge for the achievement of common objectives will have among its purposes the integration of ICT.

Well-utilised uses of technological resources may generate new opportunities for access to information, build capacity, improve productivity, foster development and the creation of equal opportunities.

- H6: The involvement of the school community will support the integration and use of technological resources.

Figure 1
Theoretical model proposed



Method

Participants

The participants in the study are 118 inspectors from the Educational Inspection Service of Andalusia (Spain). Specifically, 42.75% of the total number of inspectors took part. The gender distribution was as follows: 30 were women (25.50%) and 88 were men (74.50%). In relation to age, the segment between 51 and 60 years of age stands out, given that they represent practically half of the sample (48%); followed by the over-60 age group with 27.6% representation. The group of participants aged between 41 and 50 years accounts for 18.4% of the sample. The least represented sector are the members under 41 years of age with 6.1% of the total.

Instruments

The questionnaire to assess the opinions expressed by education inspectors, designed to collect the opinion of education inspectors (Martínez-Serrano, 2020), is used as an instrument. It consists of 25 items and 6 dimensions. A 7-point Likert-type scale (1 to 7 points) was used for the dimensions:

The first dimension is the one with a variance of 27.342%, and it has six items. We have called it 'Actions that improve coexistence, tutorial action and educational guidance'. The items refer to common actions developed by education inspectors as part of their Action Plan and reflect the respondents' evaluations of their usefulness in improving certain aspects.

The second dimension comprises 9.716% of the variance and it is made up of five items. 'Aspects that improve with the intervention of the inspectorate', since most of them refer to problems or issues that respondents consider to be improved after the intervention of the inspectorate.

The third dimension involves 8.866% of variance. 'Involvement of the school community and ICT integration'. This dimension reflects the involvement stated by the members of the sample in supervising and advising those responsible for tutorial action and educational and vocational guidance on the integration of ICT in the performance of their duties, as well as in enabling the participation of families in school life.

The fourth dimension, entitled 'Actions in relation to members of the community', represents 6.030 of variance. This dimension examines the degree of usefulness of the interviews and contacts held by inspectors with school leaders and families to analyse aspects related to tutorial action and educational and vocational guidance, whether in the development of approved actions or in the monitoring of incidentality.

The fifth dimension accounts for 4.912% of the variance. 'Technological resources in regular use'. This includes the evaluation given by the members of the sample of the Andalusian Education Inspection Service of the technological resources they use most frequently among those made available to them by the Regional Ministry of Education for the performance of their tasks and actions.

The sixth dimension covers 4.553% of the variance. 'Actions that favour the permanence of pupils in the educational system'. It is made up of three items and brings together those actions that favour the integration and school success of all students.

Procedure

The ethical guidelines encouraged and promoted by national and international regulations for conducting research with people were followed, through the completion of informed consent and guaranteeing the confidentiality and anonymity of the data obtained. The instrument was administered individually through the platform Google® (Google forms). The approximate response time for each subject was 30 minutes. This research was approved by the Human Research Ethics Committee of the University of Jaén (code OCT.20/1.TES).

Data analysis

Descriptive statistics (means and standard deviations) were obtained, analysing a priori the validity, reliability (Cronbach's alpha and Omega coefficient) and internal consistency of each instrument, by means of Confirmatory Factor Analysis (CFA), to verify the psychometric properties of the questionnaire and obtain the factor loadings of each item. The normality analysis was carried out using multivariate hypothesis testing (being the distribution of the multivariate normal set, each of the marginal variables will meet the criteria of univariate normality, but not vice versa), resulting in a non-normal distribution. Analyses were performed using SPSS AMOS 25, jamovi software (The jamovi Project, 2020) Version 1.2 and SmartPLS (version 3.3.6). In relation to the coefficients considered in this study, the Chi-square test (χ^2), the degrees of freedom (gl), and the fit indices CFI, GFI, SRMR and RMSEA were used. In this regard, χ^2 should be understood from the ratio in relation to the degrees of freedom (χ^2 /gl), where the values should be between 2 and 5. The comparative fit index (CFI) calculates the relative fit of the observed model, whose value should be greater than .90 indicating a good fit. Similarly, the goodness-of-fit index (GFI), above .90, indicates the proportion of variance and covariance of the model data. Similarly, the standardised root mean square residual (SRMR), standardised means of the residuals, i.e. the difference between the observed and model matrix, being less than .10, indicates a good model fit. The root mean square error of approximation per degree of freedom (RMSEA), as a measure of discrepancy, should have results below .08 (Kline, 2015). A 95% confidence level (significance $p < .05$) was used in all cases.

Results

First, we assessed whether the data assumed normality with Mardia's multivariate test to check the skewness and kurtosis of the observed variables, showing that the data did not follow a normal distribution. The assumptions of multicollinearity, homogeneity and homoscedasticity were analysed to verify that the resulting distribution met the criteria of dependence between variables. From the data obtained with each of the instruments (Table 1), a Confirmatory Factor Analysis (CFA) was performed to verify the validity and internal structure of each item.

Table 1
Factor loadings

Latent Factor	Indicator	α	ω	Estimator	SE	Z	p	β	AVE	RC
Improving tutorial action and educational guidance	Item 7	.840	.843	.305	.0485	6.30	< .001	.569	.589	.850
	Item 8	.804	.808	.469	.0496	9.45	< .001	.780		
	Item 9	.812	.816	.480	.0536	8.95	< .001	.747		
	Item 10	.800	.806	.546	.0564	9.68	< .001	.793		
	Item 12	.829	.831	.442	.0569	7.77	< .001	.673		
	Item 16	.837	.840	.378	.0563	6.71	< .001	.600		

Latent Factor	Indicator	α	ω	Estimator	SE	Z	p	β	AVE	RC
Improving inspection intervention	Item 4	.750	.754	.283	.0677	4.18	< .001	.415	.486	.750
	Item 6	.706	.726	.313	.0587	5.33	< .001	.522		
	Item 17	.677	.692	.408	.0577	7.08	< .001	.663		
	Item 18	.640	.653	.533	.0612	8.71	< .001	.794		
	Item 19	.697	.705	.443	.0641	6.91	< .001	.642		
School community participation and ICT integration	Item 5	.835	.853	.254	.0563	4.52	< .001	.427	.546	.818
	Item 25	.764	.791	.522	.0667	7.83	< .001	.665		
	Item 26	.700	.708	.664	.0536	12.39	< .001	.943		
	Item27	.741	.754	.621	.0605	1.26	< .001	.818		
Interrelations with community members	Item 11	.628	.645	.458	.0583	7.86	< .001	.777	.429	.747
	Item 13	.725	.732	.333	.0595	5.59	< .001	.551		
	Item 14	.665	.714	.431	.0690	6.25	< .001	.629		
	Item 15	.681	.698	.503	.0774	6.50	< .001	.643		
Use of technological resources	Item 20	.795	.795	.497	.0610	8.15	< .001	.714	.616	.826
	Item 22	.698	.698	.639	.0619	1.33	< .001	.880		
	Item23	.771	.771	.540	.0626	8.62	< .001	.751		
Actions to encourage students to remain in the education system	Item 1	.676	.676	.467	.0667	7.01	< .001	.687	.543	.773
	Item 2	.549	.552	.543	.0604	8.99	< .001	.921		
	Item 3	.770	.775	.338	.0584	5.78	< .001	.555		

Note. SE: Standardised error; Z: Z-value at estimation; p: p-value of Z-estimate; β : Standardised estimate; AVE: Average variance extracted; CR: Critical ratio.

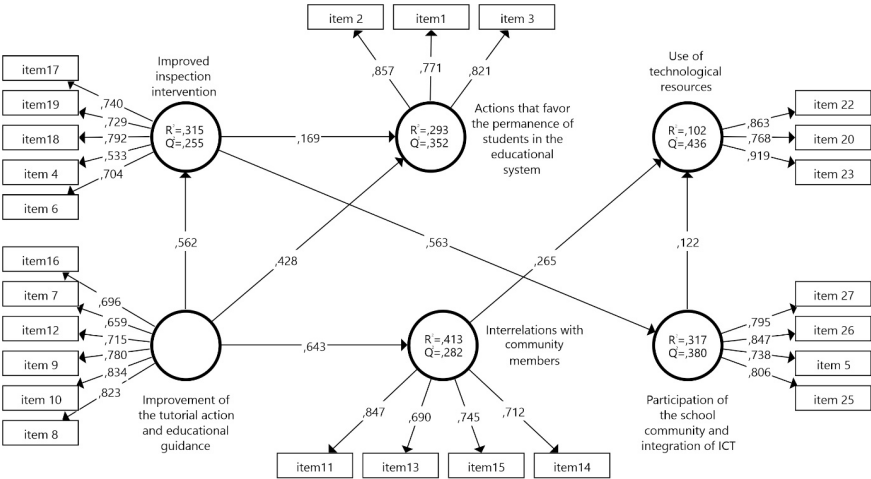
The factor loadings for the items of this scale presented an adequate fit (Hair et al., 2021), $\chi^2/df = 1.866$, with CFI = .923, SRMR = .0306, RMSEA = .0761. The reliability of this scale was Cronbach's $\alpha = .811$ and McDonald's $\omega = .813$.

Estructural Model

To analyse the robustness of the factor loadings and the significance between variables, the Bootstrapping procedure was used with 2000 subsamples (Hair et al., 2021), resulting in the structural model (Figure 2), where the latent variables considered in this research are reported. As R^2 indicates, 31.5% of the variance of the improvement of the inspection intervention; 29.3% of the variance of actions that allow the permanence of students in the educational system; 41.3% of the variance of interrelationships with members of the educational community; 10.2% of the variance of the use

of technological resources; 31.7% of the variance of school community participation and integration of ICT, explained by the variable of improvement of tutorial action and educational guidance, form the model. In this sense, R^2 values above .67 indicate a substantial model fit and above .33 a moderate fit (Chin, 1998).

Figure 2
Reliability and validity of the model



The reliability and reliability indices (Cronbach's alpha, Omega coefficient, external loadings and the composite reliability index (CFI) grades) are presented in Table 2. Regarding the convergent validity found through the estimation of the average variance extracted (AVE), the values should be greater than .5, according to the criteria of Becker et al. (2018). That is, a high value of (AVE) will have a better representation of the loading of the observable variable.

Table 2
Convergent validity

Variable	α	Composite Reliability Index (CFI)	Rho_A	Average extracted variance (AVE)
Actions to encourage student retention in the education system	.756	.776	.858	.668
Improving inspection intervention	.743	.757	.83	.497
Improving tutorial action and educational guidance	.846	.853	.887	.568
Interrelations with community members	.742	.765	.837	.564
School community participation and ICT integration	.811	.816	.874	.636
Use of technological resources	.823	.977	.888	.726

Note. (1) Cronbach's alpha coefficient = α

Discriminant validity (Table 3) shows the difference between the latent variable with the highest value and the rest of the variables, with the square root of the mean variance extracted in bold (Martínez & Fierro, 2018).

Table 3
Discriminant validity

Variable	1	2	3	4	5	6
Actions to encourage student retention in the education system	.817					
Improving inspection intervention	.41	.705				
Improving tutorial action and educational guidance	.523	.562	.754			
Interrelations with community members	.397	.419	.643	.751		
School community participation and ICT integration	.218	.563	.32	.267	.797	
Use of technological resources	.139	.263	.224	.298	.193	.852

Discriminant validity (Table 4) was analysed through the analysis of the cross-loadings of each of the latent variables and their respective observed variables, with the loadings being higher than the rest of the variables (Ramírez-Asís et al., 2020).

Table 4
Cross-loadings (latent and observable variables)

Variable	Actions to encourage student retention in the education system	Improving inspection intervention	Improving tutorial action and educational guidance	Interrelations with community members	School community participation and ICT integration	Use of technological resources
Item1	.771	.223	.36	.19	.076	.08
Item 2	.857	.303	.411	.389	.275	.187
Item 3	.821	.438	.489	.366	.17	.079
Item 4	.259	.533	.207	.051	.324	-.008
Item 6	.407	.704	.487	.299	.347	.144
Item17	.269	.74	.475	.369	.321	.279
Item18	.155	.792	.282	.225	.597	.21
Item19	.334	.729	.468	.456	.396	.253
Item 7	.447	.28	.659	.429	.161	.192
Item 8	.432	.391	.823	.57	.204	.145

Variable	Actions to encourage student retention in the education system	Improving inspection intervention	Improving tutorial action and educational guidance	Interrelations with community members	School community participation and ICT integration	Use of technological resources
Item 9	.359	.413	.78	.456	.207	.165
Item 10	.462	.541	.834	.505	.373	.25
Item12	.279	.315	.715	.559	.222	.092
Item16	.375	.564	.696	.388	.255	.155
Item11	.385	.424	.596	.847	.297	.271
Item13	.336	.225	.477	.69	.197	.152
Item14	.137	.339	.374	.712	.134	.179
Item15	.291	.255	.45	.745	.142	.274
Item 5	.265	.538	.34	.323	.738	.18
Item 25	.236	.422	.171	.173	.806	.164
Item 26	.082	.429	.242	.186	.847	.149
Item 27	.065	.357	.237	.12	.795	.103
Item 20	.042	.181	.077	.149	.122	.768
Item 22	.108	.241	.087	.177	.175	.863
Item 23	.165	.243	.312	.357	.184	.919

Table 5 shows the results of the hypothesis testing, following the criteria of Hair et al. (2021), where the causal relationship with the latent variables can be observed. The t-test was obtained (values higher than 1.96), which indicates the consistency of the model. In this research, the results that showed a higher value were: Improvement of tutorial action and educational guidance -> Interrelations with community members: ($\beta = .643$, $t = 11.932$ $p < .001$); Improvement of tutorial action and educational guidance -> Improvement of inspection intervention: ($\beta = .562$, $t = 9.049$, $p < .001$); Improvement of inspection intervention-> School community participation and ICT integration: ($\beta = .563$, $t = 8.343$, $p < .001$); Improvement of tutorial action and educational guidance -> Actions that favour student retention in the educational system: ($\beta = .428$, $t = 4.720$, $p < .001$); Interrelations with members of the community: ($\beta = .428$, $t = 4.720$, $p < .001$); Improvement of educational guidance and tutorial action -> Actions that favour student retention in the educational system: ($\beta = .428$, $t = 4.720$, $p < .001$) -> Use of technological resources: ($\beta = .265$, $t = 2.962$, $p < .001$).

Table 5
Path coefficient (standardised regression coefficient)

Relationship between variables	Path coefficient (β)	Standard deviation (σ)	Statistic t	p
Improving the intervention of the inspection-> Actions that favour the student's retention in the education system.	.169	.09	1.871	.062
Improving inspection intervention-> Involvement of the school community and integration of ICTs	.563	.067	8.343	***
Improvement of tutorial action and educational guidance -> Actions that favour the student's retention in the educational system.	.428	.091	4.72	***
Improvement of tutorial action and educational guidance -> Improvement of the inspection intervention	.562	.062	9.049	***
Improvement of tutorial action and educational guidance -> Interrelations with members of the community	.643	.054	11.932	***
Interrelationships with community members -> Use of technological resources	.265	.089	2.962	***
School community participation and ICT integration -> Use of technological resources	.122	.105	1.165	.244

Note. *= $p<.05$; **= $p<.01$; ***= $p<.001$.

Discussion y conclusions

The aim of this study was to examine the relationships between some of the essential functions attributed to the inspectorate: Actions that improve coexistence, tutorial action and educational guidance; Improvement of inspectorate intervention; Improvement of tutorial action and educational guidance; Interrelationships with community members; Participation of the school community and integration of ICT; Use of technological resources. For this purpose, six research hypotheses were proposed which have been examined on the basis of factor and confirmatory analysis. The main findings derived according to the proposed hypotheses are shown below.

In relation to H1: The improvement of educational intervention will be determined by tutorial action and educational guidance. Based on the data obtained, the hypothesis has been corroborated, as it has been found that there is a high relationship between the improvement of the performance of the inspectorate, the improvement of tutorial action and educational guidance. Tutorial action and educational guidance are positioned as a key aspect for the attention to the community, the proper functioning of the school and educational inclusion. As the educational inspection is in charge of

supervising everything that happens in educational institutions, while ensuring that the parameters of the educational administration are complied with, this result is not surprising. This finding is in line with what is found in the literature. For example, the work of Matthews and Sammons (2004), consider inspection to be a mechanism for achieving improvement in schools, which implies improvements in guidance, school functioning and teaching effectiveness. Along these lines, Velar (2016) highlights the important role of inspection as a support for school leaders to improve their school management skills, promote pedagogical renewal processes and achieve greater autonomy, while acting as an advisor to the teaching staff and the community.

Regarding hypothesis H2: 'The improvement of tutorial action and guidance favours the students' retention in the educational system', this question has been tested on the basis of the data obtained in the research. In fact, these two issues have already been linked in the literature with the permanence of students in the different educational stages (Epstein, & Van Voorhis, 2010; Graffigna et al., 2014; Kearney, 2016; Tinto, 2006).

The role of the inspection in these matters is indirect, but with a proactive approach, as the proper functioning of school processes prevents student disinterest and dropout, while providing more tools for management teams and teachers to implement the measures they deem appropriate.

As for 'H3: The effectiveness of tutorial action and guidance by the educational inspectorate will be determined by the relationships established between all members of the educational community', this has also been corroborated. Moreover, these are the variables that are most closely related. In this logic, we start from the premise that the improvement of tutorial action will lead to greater efficiency of all the agents involved, in a more systematic and communicative way. In this line, Scheerens and Ehrens (2016) conducted a framework where they identify the role of inspection in different countries.

In relation to H4: The use of technological resources by the inspectorate will not have an impact on the permanence of students in the education system, it has been corroborated that there is no relationship between the variables considered. However, technological means strengthen the channels of communication between all agents in the community. Like society, educational centres are gradually becoming digitalised, influencing not only the instructional processes, but also the way of interacting between members of the community (Febres-Cordero & Anzola, 2019; Wiyono et al., 2021), of which inspection is a part, will facilitate a more fluid communication channel.

Regarding hypothesis 5, which states: The relationships established between all educational agents, teamwork, joint construction and transmission of knowledge for the achievement of common goals will have as one of its purposes the integration of ICT, the examined relationship has proved not to be significant. However, despite the findings obtained in this work, the literature has shown that technology is a good support for strengthening relationships between educational agents (Knox, 2019), fostering a culture of teamwork (Wang et al., 2020) and improving instructional processes (Geng et al., 2019; Mayes, 2018).

In the Spanish context, authors such as Romero-García (2018) have affirmed that the integration of educational platforms is a determining element for the functioning of the centres and their supervision despite their short trajectory in the educational system. In this line, despite the evidence that educational technology in general and online platforms or learning management systems have favoured advances in educa-

tion, it delimits the real impact that it has on the figure of the inspectorate, which is a very complex matter. This fact calls for the need to be able to develop further research in this area.

Finally, H6 "School community participation will promote the integration and use of technological resources" has been confirmed, although the weakness of this relationship is highlighted. However, the literature has established a connection between participation and the use of educational technology, in any of its forms (Yngve et al., 2021).

Finally, this research is not without limitations. First, there are those related to the methodological design. As it is a cross-sectional study, it is difficult to establish causal relationships between the variables. In relation to the sample, this study has a small number of participants, although it is representative compared to the universe. Likewise, the use of a single instrument also hinders the transfer potential of this study. These limitations open the way to drawing future lines of research. Based on the scarcity of studies on this topic, the development of more research is demanded that tries to analyze the real impact that educational technology has on school supervision and accountability, through inspection or other members of the educational community. Similarly, the promotion of experimental research where pilot studies are implemented to analyze the potential that ICTs can have on educational supervision and even school management, would be an important milestone on the road to school improvement.

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