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Training transfer of teachers for the promotion of reading

Marcial Pamies-Berenguer
Universidad de Murcia, Spain
marcial.pamies@um.es

María Ángeles Gomariz-Vicente
Universidad de Murcia, Spain
magovi@um.es

Antonia Cascales-Martínez
Universidad de Murcia, Spain
antonia.cascales@um.es

Abstract

Training transfer of teachers involves the ability to generalise learning to the workplace. In this process, recognising application scenarios and making decisions on the application play an important role. The objective of this research is to explore relationships between conditioning factors affecting the transfer and the activities of identifying application scenarios and the decision-making about it in the context of training programs for the promotion of reading. The participants were 227 active non-university teachers. Two multinomial logistic models were determined to study the links by analysing the odds ratios. The results show that the factor "Design and development of training" is positively linked to both the ability to identify application situations and the decision to carry out an effective application. On the other hand, the "External locus of control" is positively linked to decision-making about carrying out an effective application. In conclusion, dimensions have been identified on which to design intervention actions to improve the transfer of lifelong learning aimed at promoting reading.

Keywords: Inservice teacher education; professional training; teaching experience; training methods; reading promotion.

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Transferencia de la formación continua del profesorado para el fomento de la lectura

Marcial Pamies-Berenguer
Universidad de Murcia, Spain
marcial.pamies@um.es

María Ángeles Gomariz-Vicente
Universidad de Murcia, Spain
magovi@um.es

Antonia Cascales-Martínez
Universidad de Murcia, Spain
antonia.cascales@um.es

Resumen

La transferencia de la formación del profesorado contempla la capacidad de generalizar los aprendizajes al puesto docente. En dicho proceso de generalización la identificación de escenarios de aplicación y las decisiones sobre la aplicación adoptadas juegan un papel relevante. El objetivo de la investigación es explorar las asociaciones entre los factores condicionantes de la transferencia y las actividades de identificación de escenarios de aplicación y la toma de decisiones sobre ésta en el contexto de los programas formativos para el fomento de hábito lector del alumnado. Los participantes fueron 227 docentes en activo de enseñanza no universitaria. Se determinaron dos modelos logísticos multinomiales que permitieron estudiar las asociaciones mediante el análisis de los *odds ratio*. Los resultados muestran que el factor "Diseño y desarrollo de la formación" se asocia positivamente tanto con la capacidad de identificar situaciones de aplicación como con la decisión de realizar una aplicación efectiva. Por su parte, el factor "Locus de control externo" se asocia positivamente con la toma de decisiones sobre la realización de una aplicación efectiva. En conclusión, se han identificado dimensiones sobre las que diseñar acciones de intervención para mejorar la transferencia de la formación permanente encaminada al fomento de la lectura.

Palabras clave: Formación del profesorado en activo; formación profesional; experiencia docente; métodos de formación; fomento de la lectura.

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Introduction

The processes of transformation of education systems must recognise the work of teachers as a core element in achieving significant changes that affect both the organisational and operational levels of schools (Ramis, 2021). Teaching allows us to incorporate methodological and technological changes, to reflect on the suitability of the use of certain didactic resources or to consider the best strategy for approaching the problems affecting society in general (Pegalajar-Palomino et al., 2022; Quiroz-Vallejo et al., 2021; Taddeo et al., 2022). In this scenario, the teacher is placed as an active subject in the transformation process, and in-service teacher training plays a dual role: to help teachers in the process of adapting to the changes demanded and to provide educational organisations with a channel for implementing change actions at the executive level (Valverde-Riascos & Martínez-Barragán, 2022). Generally speaking, these functions share the common goal of improving the quality of services provided by organisations (Dachner et al., 2021; Pinnington et al., 2022).

Although changes in teaching imposed by technological advances and the need to respond to the development of teachers' and students¡ digital competence have concentrated much of the training offered to teachers, dealing reading comprehension has great educational interest due to its positive effect on attention, the memory development and thinking (Mueller & Oppenheimer, 2014). Considering this singularity, the development of training programmes aimed at the promotion of reading makes it possible to articulate training actions aimed at promoting analysis, reflection and teacher intervention on methodological issues (Cuentas, 2020; Sifrar-Kalan & Pregelj, 2018; Vicente-Yagüe & González Romero, 2019) or the use of Information and Communication Technologies (ICTs) to improve students' reading skills (Danaei et al., 2020; Rodríguez-Chavira & Cortés-Montalvo, 2021).

Despite the widely held idea of the practical usefulness of lifelong learning programmes, research on the subject has made little progress in studying their actual effectiveness in terms of impact and return to the organisation for which the programmes are developed (Cahapay, 2021; Phillips, 2012; Topno, 2012). At the heart of this issue may lie the large number of assessment models proposed for a wide range of training and organisational contexts, limiting the possibility of comparative analysis or drawing general conclusions from the results obtained (Alsalamah & Callinan, 2021; Lippe & Carter, 2018). Kirkpatrik's four-level assessment model has been analysed and adapted in scientific research (Randomkar, 2018; Kirkpatrik & Kirkpatrik, 2016). This model is based on a four-level hierarchical view of assessment: (1) reactions, (2) learning, (3) behaviour and (4) outcomes. Level 1 and 2 focus on the assessment of the participants' perception of the development of the training, based on their expectations, the learning developed and their experience during the training. The behavioural level focuses on the application of the learning from the training process in the participant's professional practice, leaving the evaluation of the impact of the training programme on the organisation as a whole for level 4.

In the scientific literature linked to teacher training for the development of professional competences focused on improving students' reading comprehension or reading habits, the need for instructional designs on: pedagogy of textual genres is recognised (Villareal-Villa et al., 2022); the selection of texts and the incorporation of innovative methodologies such as - for example - those based on inferential comprehension (Galarraga-Arrizabalaga et al., 2023) or the interdisciplinary treatment of reading promotion (Vicente-Yagüe & González-Romero, 2019).

Within the framework of the educational competences of the Autonomous Community of the Region of Murcia (CARM), there is an interest in developing actions for the promotion

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of reading through the presence, in the Triennial Plans of Permanent Teacher Training (Order 6771/2018, 2018, p. 28414; Order 7325/2021, 2021, p. 34358), of the priority line of training: "Competence in linguistic communication, literature and the promotion of reading", assigning to the resource of reading an outstanding instrumental value in the treatment of competence in linguistic communication and placing teaching practice at the centre of the strategy for the implementation of plans for the stimulation and encouragement of reading. Those training actions that directly impact on the promotion of reading have been grouped in the training programme "Promotion of reading and school libraries" (Order 6771/2018, 2018, p. 28423; Order 7325/2021, 2021, p. 34368) in order to contribute to the achievement of the following objectives:

- To train teachers in different methodological and organisational strategies to develop the reading habit in pupils.
- To promote the development of plans to encourage reading in educational establishments.
- To improve the use of school libraries for the promotion of reading.
- To strengthen the libraries of these establishments centres as dynamic and facilitators of the teaching and learning processes.
- To encourage reading promotion and cultural dynamisation through school libraries.
- To train school library managers in the computerised management of school libraries.

During the 2018/2019 and 2019/2020 academic years, the Centro de Profesores y Recursos Región de Murcia (CPR Región de Murcia) offered a total of fourteen activities included in the aforementioned training programme, with the following specific objectives, among others: to deepen in methodologies for the promotion of reading in the classroom; to know and use activities of dynamisation of the library and reading promotion and techniques of dissemination and promotion of school libraries; to learn about the implementation of the Reading Plan for the promotion of reading and collaborative activities to improve the development of the reading habit and foster the improvement of reading skills from all fields, subjects and, where appropriate, elements of the curriculum, considering the specificities of each of them; to discover in a practical way the possibilities offered by technologies in the development and promotion of reading and writing through the use of various web 2. 0. The effort made to deploy these training actions raises the need to assess programme's impact on teaching practice of the participating teachers and to reflect on the actions to be taken by the Administrations in order to facilitate the process of transferring learning to the workplace. On the other hand, the lack of studies and research on the transfer of training programmes related to the promotion of language proficiency points to the absence of proposals to assess the impact of such programmes.

Transfer of in-service training for non-university teachers

Level 3 of the assessment model of training programmes proposed by Kirkpatrik (Kirkpatrik & Kirkpatrik, 2016) establishes the evaluation of the participants' behaviour in relation to the application of the learning to the workplace after the end of the training. Linked to this level of evaluation, the transfer of training to the workplace adds, to the action of applying learning, the process of generalising and maintaining it over time (Huang et al., 2015). Therefore, transfer more fully describes the behavioural level of Kirkpatrik's model, positioning it as a necessary element in the study of the outcomes and impact of training programmes (Baldwin et al., 2017; Brion, 2020; Ford et al., 2018).

The transfer process is conditioned by a large number of factors linked to both individual characteristics and characteristics of the context in which the work takes place (Ford et al., 2018; Richter & Kauffeld, 2020; Roig-Ester et al., 2021). In addition to the number of factors, the transfer process is dynamic in nature (Blume et al., 2019), which makes it highly complex to analyse and obtain generalisable results.

In the educational context, the model of conditioning factors for the transfer of non-university teacher training proposed in Pamies-Berenguer et al. (2022) sets out a set of eight factors: "Training design and development", "Self-efficiency", "Promotion of training by school bodies", "Feedback from students and families", "Environmental resources", "Resistance to change in the school", "Monitoring of the training institution" and "External locus of control". However, the link between these factors with the outcome of the transfer process remains an open question.

Dynamic model for the transfer of lifelong learning

The inclusion of time as an independent variable in the study of the dynamic model for transfer entails a dynamic view of the decisions made by individuals when applying learnings or keeping/discarding/updating them in future applications and the factors that condition it (Blume et al., 2019; Sitzmann & Weinhardt, 2018). This way, the dependence of the decision-making process on the instant in which each activity is carried out is contemplated, recognising it as a process with memory that contemplates past decisions and in which conditioning factors have an effect that is also time-dependent. This compartmentalised view in which various dynamics combine to operate together provides a more detailed and complex view of the mechanism underlying transfer (Nielsen & Shepherd, 2022).

Blume et al. (2019) propose a successive set of iterations for their dynamic model, describing it as a successive collection of application attempts that trigger assessment and decision-making activities by the applicator, (see figure 1) on the maintenance or discarding in future situations of potential application of the learning developed in the training context. Conditioning factors impact the context in which implementation takes place, the results of feedback analysis and decision-making throughout the process. In each iteration, the results of the application of the learning outcomes are assessed and a decision is made to rule out, maintain or adapt the application in future scenarios.

In the model of Blume et al. (2019), it is worth stressing the inclusion of the training phase as a starting point for the iterative process. This highlights the importance of a training design that takes into account the transfer process from the very beginning, facilitating entry into the sequence of transfer iterations as early as possible and providing a supportive environment for transfer within the training activity.

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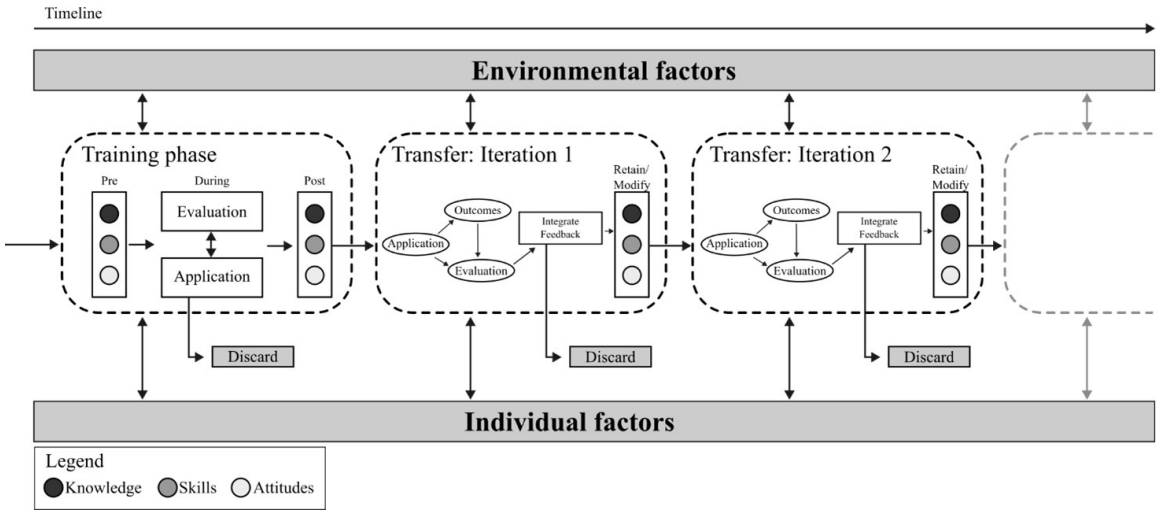
Figure 1. Dynamic model of the transfer process by Blume et al. (2019).



Note. Prepared by the authors.

Objective of the research

The implementation of learning in the context of teaching practice determines the starting point of each iteration of the dynamic model described above. Starting each iteration thus requires the teacher's ability to identify scenarios for activating learning and making decisions about the effective application of learning.

The aim of the research is to study the way in which the conditioning factors of transfer are linked to the processes of identifying scenarios for the application of the learning developed and deciding on the effective application in the context of the training activities offered by the Centro de Profesores y Recursos Región de Murcia (CPR Región de Murcia) within the ongoing teacher training programme "Promotion of reading and school libraries".

The analysis of these links will make it possible to extract factors that condition the identification of potential situations for the application of the learning developed in the training and decision-making on the application of this learning in a favourable situation. This identification and decision-making by the teacher are embedded in the dynamic model attributed to the transfer of learning. Knowing whether environmental resources, training design or external locus of control are positively or negatively linked to these processes would identify elements on which to intervene, improving training design, resources available to the teacher or workload. The foregoing could have an impact on the rate of identification of situations of potential application and improve the teacher's decision making on the application of the learning derived from the study training programmes (promotion of reading and management and dynamisation of school libraries).

Methodology

Participants

The study focused on the population of non-university teachers from publicly funded schools in the Autonomous Community of the Region of Murcia, who conducted activities within the training programme "Promotion of reading and school libraries" and included in the ongoing training plans for non-university teachers developed by the CPR Región de Murcia during the 2018/2019 and 2019/2020 academic years.

227 teachers made up the sample, which, according to the public data consulted at the end of each academic year on the Regional Training Plans website (http://www.educarm.es/plancentrodeprofesores), represents 44.16% of the population. Participants were selected by convenience sampling in which, on a voluntary basis, each participant answered the questions posed in the research data collection questionnaire.

Of the 227 surveys collected, 62.56% were female and 37.44% male. The mean age of respondents was 44.41 years (SD = 11.44), with a mean experience of 16.46 years (SD = 8.55). In terms of the educational stage at which they teach, 47.14% teach at the Pre-school and/or Primary Education stages; 48.46% teach at the Secondary Education stage (Secondary Education, GCE or vocational training); 3.52% teach at other levels (adult education, official language school, artistic education...) and 0.88% do not teach directly at the time the survey was carried out. As for the administrative status of the participants, 71.81% were career civil servants, 14.98% were temporary civil servants, 12.33% were non-civil servant teachers and 0.88% stated their circumstances were different.

Design

In order to interpret and analyse data and variables objectively to help understand the underlying reality of the transfer process at a given moment in time, this research is based on a cross-sectional, non-experimental, exploratory, survey-type design (Cubo et al., 2018).

Instrument

A survey addressed to the teachers included in the study population was used as a data collection instrument, which was configured with the following instruments:

(1) A socio-demographic data questionnaire, used to collect the following data: gender, age, years of teaching experience, educational stage of teaching, employment situation and the training programme in which the training activities were carried out.

(2) A non-university teacher training transfer questionnaire (Pamies-Berenguer et al., 2022), consisting of a scale made up of 56 items that allow the scores of the conditioning factors of transfer to be measured. Each item was configured on a Likert-type scale (1-5).

(3) A transfer estimation questionnaire, which was used to obtain the data for the dependent variables: (PPA) estimate of the percentage of occasions when there has been an opportunity to implement the learning from the training and (PAR) the percentage of times when, having identified a possibility for implementation, a decision was made

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to implement it. Both scales were presented using the ordinal scale: 0%-20%; 20%-40%; 40%-60 %; 60%-80% and 80%-100%.

Procedure

Once approval for the study had been obtained from the General Secretariat of the Department of Education of the Autonomous Community of the Region of Murcia and the approval of the Research Ethics Committee of the University of Murcia, the data collection instrument was made available to the study population through the communication channels of the CPR Región de Murcia: mass e-mailing of the questionnaire and insertion of the link in the official questionnaires used for the final evaluation of the training activities.

A descriptive analysis of the independent variables (transfer factors) was conducted using the mean, standard deviation, median, 5^{th} and 95^{th} percentiles. In addition, the dependent variables (PPA, percentage of identification of situations of application of the learning developed and PAR, percentage of application of the learning from the training in a situation of potential application) were described in terms of the percentages obtained in each of the ordinal marks proposed in the scale.

A search for multinomial logistic models was carried out, using the top-down comparison method, in order to identify and analyse the links between the dependent and independent variables of the study.

The statistical procedure was performed using R statistical software version 4.0.5 (31-03-2021) running on a macOS Sierra operating system version 10.12.6. The packages used during the analysis process were: nnet 7.3-16, car, caret and dplyr.

Results

In descriptive terms, table 1 shows the summary descriptive statistics of the factor scores for each conditioning factor (independent variables). According to the criterion set out in Feixas et al. (2013), powerful transfer enablers are those with an average score above four points and weak transfer enablers are those with an average score in the range of three to four points. In the context of this study, all factors are thus identified as weak facilitators of transfer with the exception of the factor Training design and development, which is the strongest.

Table 1. Descriptive data on factor scores.

Factor	Mean	SD	Median	Percentiles (5% - 95%)
Training design and development (F1)	4.02	0.76	4.09	2.77 – 5.00
Self-efficiency (F2)	3.84	0.96	4.00	1.91 – 5.00
Promotion of training by the bodies of the establishment (F3)	3.00	1.21	3.00	1.00 – 5.00
Student and family feedback (F4)	3.46	0.97	3.40	1.80 – 5.00
Resources of the environment (F5)	3.67	0.62	3.67	2.67 – 4.67
Resistance to change in the establishment (F6)	3.52	0.92	3.33	2.00 – 5.00
Follow-up of the training institution (F7)	3.88	0.91	4.00	2.33 – 5.00

Factor	Mean	SD	Median	Percentiles (5% - 95%)
External control locus (F8)	3.15	0.71	3.00	2.00 – 4.43

Note. SD: Standard deviation.

The data linked to the class marks for each of the dependent variables (PPA, percentage of identification of situations of application of the learning developed and PAR, percentage of application of the learning from the training in a situation of potential application) are shown in table 2.

Table 2. Distribution of data obtained for the dependent variables PPA and PAR in absolute frequencies.

Variable	0%-20%	20%-40%	40%-60%	60%-80%	80%-100%
PPA	22	38	66	70	31
PAR	21	53	56	63	34

Note. PPA: percentage of identification of situations of application of the learning developed; PAR: percentage of application of the learning from the training to a situation of potential application.

In both cases, it is observed that the 60%-80% range serves as the modal range. It is found that 9.25% of the participants state that they have made the decision to effectively apply the learnings less than 20% of the times they were confronted with potential application situations.

Taking the 80%-100% class mark (MCR) of the dependent variables (PPP and PAR) as the reference class, multinomial and multivariate logistic adjustments were performed, using a top-down adjustment method, for which the minimisation of the Akaike information criterion was considered as the basis (Tabachnick & Fidell, 2018). Table 3 shows the results of the variable elimination process.

At the end of the process, the estimation model that minimises the Akaike information criterion for the PPP variable (675.77) retains a single factor: Training design and development (F1), while the model for the PAR variable (665.68) considers the contribution of the factors: Training design and development (F1) and External locus of control (F8).

Table 3. Results of the variable elimination process (top-down method).

		Increase in AIC by removing each factor								
Step	Variable	F1	F2	F3	F4	F5	F6	F7	F8	AIC
Step 1	PPA	-3.82	-6.72	-0.68	-6.28	-2.43	-6.46	-4.21	-1.44	701.87
	PAR	0.83	-6.29	-6.87	-2.34	-3.12	-3.38	-7.45	2.67	696.63
Step 2	PPA	-3.98	-	0.23	-5.74	-2.30	-6.33	-2.51	-1.57	695.15
	PAR	1.69	-5.00	-6.93	-2.46	-2.97	-2.89	-	2.57	689.18
Step 3	PPA	-3.94	-	4.04	-5.90	-2.19	-	-2.48	-1.50	688.82
	PAR	1.76	-4.85	-	-2.5	-3.24	-1.24	-	1.90	682.25
Step 4	PPA	-3.76	-	2.96	-	-0.80	-	-3.87	-2.38	682.92
	PAR	3.55	-	-	-3.19	-3.32	-1.06	-	1.67	677.40
Step 5	PPA	1.61	-	3.49	-	-1.67	-	-	-1.20	679.05
	PAR	11.96	-	-	-3.96	-	-1.46	-	4.51	674.08

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		Increase in AIC by removing each factor								
Step	Variable	F1	F2	F3	F4	F5	F6	F7	F8	AIC
Step 6	PPA	10.64	-	0.97	-	-	-	-	-0.07	677.38
	PAR	12.36	-	-	-	-	-4.44	-	5.92	670.12
Step 7	PPA	18.76	-	-1.54	-	-	-	-	-	677.31
	PAR	29.93	-	-	-	-	-	-	6.14	665.68
Step 8	PPA	22.00	-	-	-	-	-	-	-	675.77
	PAR	-	-	-	-	-	-	-	-	-

Note. PPA: percentage of identification of situations of application of the learning developed; PAR: percentage of application of the learning from the training to a situation of potential; F1: Training design and development; F2: Self-efficiency; F3: Promotion of training by the bodies of the centre; F4: Student and family *feedback*; F5: Resources of the environment; F6: Resistance to change in the establishment; F7: Follow-up of the training institution; F8: External control locus; AIC: Akaike information criterion

Table 4 shows the Odds Ratio (OR) estimates linked to the logistic regression models identified. It is found that, by increasing the factor "Training design and development" (F1) by one unit, the probability that the percentage in which the participant identifies suitable scenarios to put the training knowledge into practice decreases with respect to the reference class mark MCR (0.204, 0.303, 0.428 and 0.879). This effect of decreasing probabilities is also identified in the class marks of the variable measuring effective enforcement when an enforcement scenario is detected (0.106, 0.190, 0.286 and 0.563). Along the same lines, an increase of one unit in the score obtained for the factor "External locus of control" (F8), keeping the rest of the factor scores constant, causes a decrease in the probabilities of the 0%-20%; 20%-40% and 40%-60% marks for the PPA variable with respect to the MCR (0.439, 0.924, 0.927), with an increase in the relative probability for the 60%-80% class mark (1.842). Despite the reverse phenomenon found among the higher probability classes for the factor "External locus of control", an overall positive effect is considered, as the MRC and the 60%-80% mark are contiguous and could be interpreted as falling into the category of high probability of application.

Table 4. Estimated effects, in Odds Ratio, of the independent variables (IV) on the dependent variables (DV) in the regression model.

		Marks of the dependent variables							
DV	IV	0-20%	95% CI	20-40%	95% CI	40-60%	95% CI	60- 80%	95% CI
PPA	F1	0.204***	0.089, 0.470	0.303***	0.138* 0665	0.428***	0.203* 0.901	0,879***	0.411, 1881
	Akaike information criterion: 675.77 Nagelkerke R2: 12.99% Cox-Snell R2: 12.37%								
	F1	0.106***	0.041, 0.270	0,190***	0.082, 0.439	0.286***	0.125, 0.656	0,563***	0.245, 1297
PAR	F8	0,439***	0.175, 1.103	0,924***	0.460, 1.859	0,927***	0.470, 1.830	1,842***	0.965, 3.516
	Akaike information criterion: 665.68 Nagelkerke R2: 24.28% Cox-Snell R2: 23.11%								

N.B.: * p<.1

** p<.05

*** p<.01

PPA: percentage of identification of situations of application of the learning developed; PAR: percentage of application of the learning from the training to a situation of potential; F1: Training design and development; F8: External control locus; CI: Confidence interval.

Nagelkerke R2 and Cox-Snell R2: synthesised values of the coefficient of determination for the multinomial logistic model (Tabatchnick & Fidell, 2007).

Generally speaking, it is found that an improvement in the design and development of training actions would produce an increase in the probability of recognising a greater number of potential situations for the application of learning derived from the training process. In this case, the mark with the lowest recognition scores has a negative rate of change compared to the reference mark. In the case of decision making on the application of learning in a favourable situation, in addition to the improvement of training design and development, there is the positive effect of a reduced workload and lighter external pressure (external locus of control).

Discussion

The purpose of the research was to explore the links between the conditioning factors of the transfer of in-service training of non-university teachers and their ability to identify potential scenarios for the application of the learning developed in the training programme "Promotion of reading and school libraries". We also sought to identify links between these conditioning factors and decision-making on whether to maintain or discard the application of apprenticeships in the face of a scenario identified as suitable for application.

In the framework of the lifelong learning programme "Promotion of reading and school libraries", all the factors conditioning transfer obtain average scores between three and four, which allow us to identify them as weak facilitators of transfer (Feixas et al., 2013), except for the factor "Design and development of training", considered a strong facilitator of transfer as it exceeds the four-point limit. The identification of factors as weak facilitators indicates the existence of room for improvement that would facilitate the transfer process in the training programme activities analysed.

As for the process of identifying scenarios for the application of learning developed in the training context, significant links were found between the factor "Design and development of training" and the percentage of times in which teachers identify a suitable situation for the application of learning. The results obtained are in line with those reported in related studies, where the factor "Training design and development" is identified as positively correlated with transfer (Bhat et al., 2022; Kim et al., 2019; Tzafilkou et al., 2022). This positive link shows that improving the design of the training so that the participant has a more complete vision of the learning received, the influence of the trainers on the implementation of the learning and the stimulus and motivation to transfer the learning (Pamies-Berenguer et al., 2022) have a positive effect on the identification of situations in which to apply it, improving the possibilities of generalisation to the teaching position.

Similarly, the factor "Training design and development" is positively linked to the process of making decisions about applying the knowledge developed when a situation for application is recognised. In the same sense as indicated in the previous paragraph, a training design in which the trainer presents the contents, complementing them with real situations of application, encourages reflection on teaching practice and concentrates efforts on maintaining motivation towards the application of the participants, improves the activation of learning when they find themselves in situations conducive to application and, in this way, favours implementation and assessment activities that facilitate the process of generalisation.

On the other hand, the factor "External locus of control" has been related to the transfer process in several research papers (Sahoo & Mishra, 2017; Tantanawat, 2020) pointing towards

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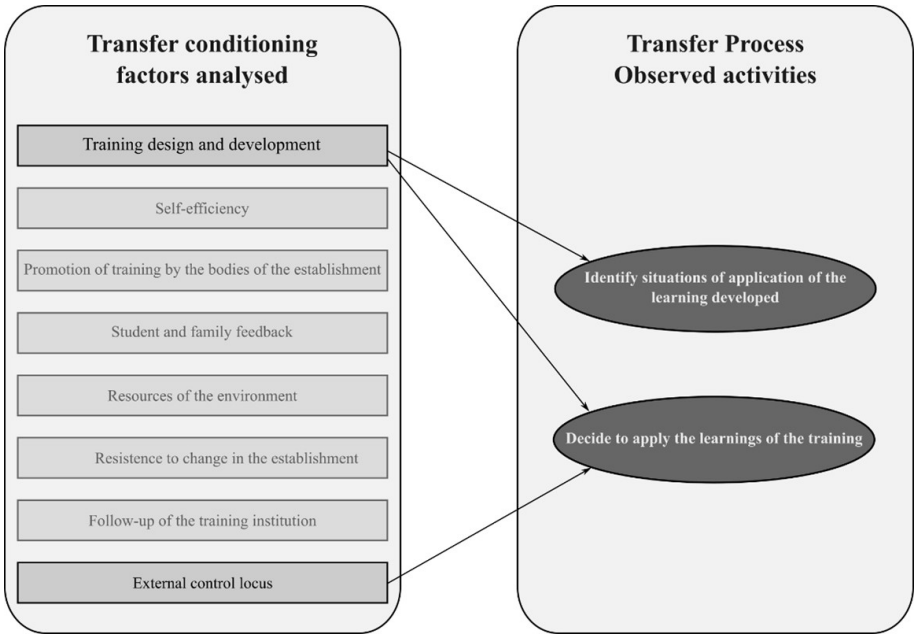
its effect on participants' motivation. Thus, these results are in line with those obtained in the present research where the mediation of motivation to apply (Gegenfurtner et al., 2020; Na-Nan & Sanamthong, 2020) is interpreted to be at the root of the positive association between this factor and the application process in enabling situations.

The development of the research has made it possible to respond to the objective set in the study, identifying a set of conditioning factors of transfer that influence the decision-making processes when applying the learning developed in the training context of the activities associated with the "Promotion of reading and school libraries" programmes (see figure 2).

Figure 2. Diagram of the set of associations between the transfer conditioning factors and the transfer-related activities analysed.

Note. Links with an arrow are of a positive nature



Source: Prepared by the authors.

This research is subject to a number of limitations. Firstly, the dependent variables under analysis represent subjective perceptions of the surveyed participants, so there is no objective assessment of the identification of application scenarios and the actual application of the training learning. Secondly, we should consider the limitations on the statistical model imposed by a cross-sectional experimental design focused on the descriptive analysis of a specific reality at a specific moment in time.

Conclusions

The activities, inherent to the process of transfer of learning, which focus on identifying scenarios for the application of learning and on the teacher's decision-making, are of vital importance to gain a better understanding of the overall process of transfer and to recognise dimensions on which to act in order to improve the process by which learning linked to the promotion of reading and the use of school libraries is effectively incorporated into teaching.

The results obtained in this research show that suggesting training designs in which value is placed on application examples, motivation to transfer or in which trainers exemplify how to

put learning into practice, would lead to an improvement in the precursor processes of transfer of training. On the other hand, educational administrations must take care of the emotional sphere linked to the recognition of the effort made by teachers when carrying out training activities. Attention to these issues would mitigate the limitations on the motivation to transfer derived from a negative perception of factors external to the individual and his/her environment that would constrain the implementation of the learning developed in the training activities.

The results presented herein contribute to improving knowledge about the transfer process of in-service teacher training for non-university teachers and open an avenue for future work in which specific transitional features of the reading literacy training programme are identified to complement the effect of the factors identified.

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