

## Understanding the trainers' view of the effectiveness of continuing professional training: the case of public servants training

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**Abstract:** There is empirical evidence that the research findings on training effectiveness are hardly applied in organizations; one possible reason is that these findings do not reach trainers in a way that could help them make decisions about the design and implementation of training programs. This gap could be explained by the fact that most of those studies have primarily been focused on the trainees' perception of what factors affect the outcomes of training, while the trainers' perspective on it has barely been studied. The goal of this study was to explore the trainers' view on the efficacy of training, in terms of transfer outcomes; for this purpose, 300 trainers participating in the implementation of the training schemes addressed to Public Administration employees in Andalusia (Spain) were surveyed. The results showed that the trainers' perception of training effectiveness was influenced by the characteristics of the current culture of continuing professional training in this organizational sector: an individualistic and centralized conception of training and the absence of the sense of responsibility for training outcomes. Furthermore, five conceptions of effective training were detected: one focused on ensuring that the design of the training event satisfies the trainees, other based on the use of workplace as a learning space, the third concept is concerned about accountability for training results, a fourth focused on addressing the organizational demands and the last reflecting an ecological conception of training effectiveness. It is concluded that research on training effectiveness should be more aligned with the trainers' concerns if research findings are to be used by practitioners and, thus, they can help transform the culture and practices of employees training.

**Keywords:** continuing professional training; transfer of training; trainers' beliefs; training program effectiveness

### [es] Comprender la perspectiva de los formadores sobre la eficacia de la formación continua: el caso de la formación de empleados públicos

**Resumen:** Existen evidencias de que los hallazgos obtenidos por la investigación sobre eficacia de la formación apenas son utilizados en el seno de las organizaciones; una posible razón apunta a que estos resultados no llegan a los formadores de un modo en que puedan resultarles útiles para planificar y desarrollar acciones formativas. Esta desconexión puede ser explicada por el hecho de que la mayoría de estos estudios se centran fundamentalmente en la percepción de los participantes sobre qué factores afectan los resultados de la formación, mientras que la perspectiva de los formadores apenas ha sido estudiada. El objetivo de este trabajo fue explorar la percepción de los formadores sobre la eficacia de la formación en términos de resultados de transferencia; para ello, se encuestó a 300 formadores implicados en el desarrollo de los planes de formación dirigidos a los empleados de la Administración Pública en Andalucía. Los resultados muestran que la percepción de los formadores se halla influenciada por las características de la cultura de formación de este sector: una concepción individualista y centralizada

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de la formación y la ausencia del sentido de responsabilidad respecto de los resultados de la formación. También fueron detectadas cinco concepciones de formación eficaz: una centrada en un diseño de la actividad formativa que asegure la satisfacción de los participantes, otra focalizada en el lugar de trabajo como espacio de aprendizaje, una tercera interesada en la responsabilidad por los resultados, una cuarta centrada en atender las demandas de la organización y, finalmente, una concepción ecológica de la eficacia de la formación. Se concluye que la investigación sobre formación eficaz debería alinearse más con las cuestiones que afectan a los formadores, si aspira a que sus hallazgos puedan ser utilizados por los profesionales y, así, lleguen a transformar la cultura y práctica de la formación.

**Palabras clave:** formación continua, transferencia de la formación, creencias de los formadores, eficacia de programas formativos

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## 1. Introduction

Employees training needs to be effective if it is to play the essential role expected of it in the organizations' ability to adapt and survive in today's ever-changing context (Batthi & Kaur, 2010; Grossman & Salas, 2011; Marin-Diaz, Llinàs-Audet & Chiaromonte-Cipolla, 2011). As noted by Chiaburu and Lindsay (2008), training programs are effective only to the extent that the knowledge, skills and attitudes learnt during instruction are actually transferred to the workplace. Therefore, most of the research on training effectiveness uses learning transfer as the most critical outcome of training and, accordingly, the main measure to evaluate its effectiveness.

The main efforts of research have been focused on detecting what factors contribute to enhance or inhibit learning transfer and how to measure them (e.g. Bates, Holton & Hatala, 2012; Blume, Kord, Baldwin & Huang, 2010; Grossman & Salas, 2011; Velada, Caetano, Michel, Lyons & Kavanagh, 2007) and on developing conceptual or explanatory models of the process of learning transfer (e.g. Bathi & Kaur, 2010; Grohmann, Beller & Kauffeld, 2014; Holton, Bates & Ruona, 2000; Reinhold, Gegenfurtner & Lewalter, 2018). Several studies have focused on analyzing if cultural factors could make difference on the variables affecting the process of training transfer or on the way in which these variables are perceived by participants (Bates, Holton & Hatala, 2012; Subedi, 2006; Yang, Wang & Drewry, 2009) and some authors have raised the possibility that sectorial characteristics influence the efficacy of certain training interventions (Burke & Hutchins, 2008; Donovan & Darcy, 2011; Gaudine & Sacks, 2004). In Spain, research works on the transfer of employees training are still scarce.

Nevertheless, it is also repeatedly found that a small proportion of what is learnt from training is applied at the workplace (Grossman & Salas, 2011; Hutchins, 2009; Martin, 2010). The process of training transfer is very complex and involves multiple variables, but it also implies different perspectives. Most studies of training effectiveness have analyzed the trainees' perceptions of barriers and facilitators to training transfer. The trainers' perspectives have been taken into account in very few instances (Donovan & Darcy, 2011; Hutchins, 2009; Hutchins & Burke, 2007; Burke

& Hutchins, 2008). In fact, some studies carried out of the trainers' perspectives on learning transfer have shown some disconnect between their beliefs and the research findings (Huint & Saks, 2003; Hutchins & Burke, 2007). Burke and Hutchins (2007) concluded that various transfer factors detected by research are hardly applied in organizations because they do not provide a close link to their practices. Such disconnect may be due to the fact that, as Rynes, Colbert and Brown (2002) pointed out, these results do not reach practitioners or, at least, do not reach them in a way that could be helpful to guide their own practice. This gap could be explained by the fact that trainees and trainers see the problem of training transfer from different angles. The former's perspective is limited to their role as learners and workers. But the trainers' perspective is wider and more complex: they should keep in mind the needs and goals of the organization, the conditions under which training programs are planned, the trainees' needs and characteristics, and their own technical expertise and skills in training. Trainers' perception of what those demands are, how they affect the outcomes of training and how diverse requirements could be harmonized steers the trainers' decisions on instructional design and delivery. Therefore, the effect of trainers' perception is especially relevant given the great importance attached to the trainers' decisions on the final configuration of the training provided to employees (Alvarez, Salas & Garofano, 2004; Burke & Hutchins, 2008). Research findings on factors affecting learning transfer as perceived by individual trainees can help trainers to better understand the participants' concerns during the transfer process, but these findings can be of little use for training planning, because they reflect only part of the demands trainers must meet and many of those factors cannot be directly translated into decisions on training design. Disregarding the trainers' view on training transfer has prevented research findings from reaching training practice.

The goal of this study was to explore the trainers' view on training effectiveness in the public sector in order to better understand what the stance of trainers about training transfer is. In particular, this work was aimed to knowing the trainers' perception of the training practices and personal and contextual variables that affect training transfer in the case of the training of the public servants in Andalusia (Spain), and exploring if all these elements are organized by the trainers in a particular way –combinations of elements which encompass what the observed variables have in common from the view of trainers– reflecting latent conceptions of effective training.

## **2. Factors that facilitate or inhibit training transfer from the view of trainers**

Since the publishing of Baldwin and Ford's model (1988), it is assumed that transferring training to the workplace depends on training inputs that include the trainee's characteristics, the training design and the work environment. The transfer factors detected by research that are more relevant in terms of decisions regarding trainers' performance are outlined briefly.

### **2.1. Trainees' characteristics**

Many transfer factors identified by research on training effectiveness are variables related to the employees' characteristics as learners. This is the case of variables such

as the trainees' cognitive abilities or personality traits as locus of control or self-efficacy (e.g. Alvarez, Salas & Garofano, 2004; Blume *et al.*, 2010; Gegenfurtner, Veermans, Festner & Gruber, 2009; Lim & Johnson, 2002; Velada *et al.*, 2007). Although these variables are helpful to explain the training outcomes obtained, they can be a little help for trainers. However, other attendees' characteristics are relevant in respect of trainers. Learners' readiness, defined by Holton, Bates and Ruona (2000) as 'the extent to which individuals are prepared to enter and participate in training' (p. 344) is a transfer factor which can be handled by practitioners through trainees selection criteria and training framing, which are two elements of training design. Employees' attitude towards training is other trainees' characteristic affecting transfer that encompass several variables as motivation to training (Burke & Hutchins, 2007; Kontoghiorghes, 2001; Taylor, Russ-Eft & Chan, 2005), motivation to learn (Gegenfurtner *et al.*, 2009; Machin & Fogarty, 2003) and motivation to transfer (Grohmann, Beller & Kauffeld, 2014; Liebermann & Hoffmann, 2008; Nikandrau, Brinia & Bereri, 2009). In practical terms, from the view of trainers, the participants' pre-training motivation – i.e. what makes employees get involved in training – affects their expectations for training which, in turn, influence their views on the usefulness of training. The usefulness of training perceived by each participant will have an impact on their motivation to learn (Burke & Hutchins, 2007; Velada *et al.*, 2007). Finally, some post-training interventions (feedback, peer interactions) might support trainees' motivation to transfer (Reinhold, Gegenfurtner & Lewalter, 2018; Van den Bossche, Segers & Jansen, 2010).

## 2.2. Training design

The importance of performing a comprehensive analysis of the training needs in order to assure training effectiveness has obtained a broad consensus in research literature; in spite of this, there is still far too little research on how the process of needs analysis affects training transfer (Burke & Hutchins, 2007). Nevertheless, several transfer factors detected by research make reference to decisions regarding training design which should be supported by a systematic analysis of training needs, as discussed below.

Three different levels of analysis –organizational, personnel and job-tasks– are generally used to study the training needs in an organization. With regard to the organizational analysis, it is necessary to evaluate the training needs arising from the strategy of the organization; so, aligning training with the goals of the organization is precisely a transfer factor that is broadly supported by researchers (Alvarez, Salas & Garofano, 2004; Donovan & Darcy, 2011; Lim & Johnson, 2002; Montesino, 2002).

The personnel analysis identifies what employees need training and what training each employee needs; it also identifies what employees are better equipped to learn best –employees who have the prior abilities required– and may apply training content at their post (Gegenfurtner *et al.*, 2009). This analysis is linked to the selection of trainees (and, indirectly, to the trainees characteristics as learner's readiness).

On its part, the job-tasks analysis identifies the nature of the tasks that are to be performed within the organization to improve its effectiveness or respond to new goals, in order to determine the knowledge, skills and attitudes that are necessary to that end. This level of training needs analysis is linked to a key transfer factor: the usefulness or practical relevance of the training content. Training needs to offer the

knowledge and abilities required to address the tasks that employees have to deal with and that are required by the organization to respond to its own goals. Training content has to be objectively relevant for the workplace and the organization, but trainees have to perceive it too. The perceived content validity –as perceived by trainees– is one of the transfer factors that has broader empirical support (e.g. Burke & Hutchins, 2007; Burke & Hutchins, 2008; Gegenfurtner *et al.* 2009; Liebermann & Hoffmann, 2008). But trainers can have their own sense of the usefulness of training content and the ‘perceived content validity’ could merely be considered as an indicator of participants’ satisfaction.

Reconciling the employees’ needs and the organization’s needs is a controversial issue but it is nevertheless necessary for training to have the desired effect (Martin, 2010). To that end, the analysis of the training needs should include the employees’ view and that of their hierarchical superiors (Montesino, 2002), which means that both of them should be informants of such analysis. This issue has not been studied in the research on learning transfer but it could be another of the trainers’ concerns.

Training delivery format is another of the variables analyzed. The results of several studies demonstrated those formats which are characterized by using the workplace as a learning space (on-the-job training or a delivery format that combine on-site training units with intervals when trainees practice the training content in the workplace) are more effective in terms of training transfer than the traditional of short and external courses or mass training (Aragón-Sánchez, Barba-Aragón and Sanz-Valle, 2003; Kauffeld & Lehmann-Willenbrock, 2010; Sacks & Burke-Smalley, 2014).

Training framing – offering detailed and realistic information of the objectives of learning, its connection to the workplace, and its relevance for the performance of employees and organization prior to training– has also been identified as a training design factor that affects transfer (Burke & Hutchins, 2007; Gegenfurtner *et al.*, 2009; Kontoghiorghes, 2001; Montesino, 2002; Nikandrou, Brinia & Bereri, 2009). It guides employees when deciding to participate in the training programs and also generates realistic expectations in this regard.

The influence of certain particular methods and instructional techniques on learning transfer has also been the focus of research on training effectiveness (e.g. Alvarez, Salas & Garofano, 2004; Burke & Hutchins, 2007; Velada *et al.*, 2007). In addition, there is empirical evidence that the implementation of follow-up strategies (feedback, coaching, learning group, etc.) in order to help trainees during the process of transfer increases the likelihood of success (e.g. Burke & Hutchins, 2008; Martin, 2010; Reinhold, Gegenfurtner & Lewalter, 2018).

There are few studies about the influence of trainers’ characteristics in terms of training effectiveness. Some aspects such as their expertise in training content and their teaching ability seem to affect the results obtained in the opinion of trainers themselves (Burke & Hutchins, 2008; Donovan & Darcy, 2008). The influence of the learning materials has not been studied either. Nevertheless, some experts in employees training emphasize the need to offer high-impact learning materials, i.e., materials designed to make learning easier and to support the process of learning transfer (Wade, 1998; Wilson, 1999). This element becomes even more important in the case of online training, where the learning materials are the core of the training provided.

Introducing an element dealing with accountability, such as the assessment of what trainees have learnt or the use of training back in the workplace, is identi-

fied as a factor affecting training effectiveness. Participants are more motivated to learn during training, learn more and retain what they learnt better when they are aware that their learning achievements will be assessed after training (Burke & Hutchins, 2008; Gegenfurtner *et al.*, 2009; Kontoghiorghes, 2001). Additionally, the level of the learning retained has an indirect effect on training transfer (Chiaburu & Lindsay, 2008; Homklin, Takahashi & Techakanont, 2014; Machin & Fogarty, 2003). Moreover, research on training effectiveness has demonstrated that the trainee's satisfaction is not linked to learning outcomes, neither to transfer ones (Alvarez, Salas & Garofano, 2004; Hutchins & Burke, 2007; Morgan & Casper, 2000) and it is not used as a training outcome in current research. From the trainers' perspective, assessing the trainees' satisfaction means evaluating the trainer's performance.

### 2.3. Work environment

Some characteristics of the work environment come as key elements for training effectiveness. Hawley and Barnard (2005) grouped the work environment factors affecting training transfer into two categories: work system factors and people-related factors. The former encompass the learning culture of the organization –including the type of incentives used by the organization as rewards for participating in training programs– and the opportunities to use the training content in their jobs –an element which entails that the organization allocates the suitable time, resources and conditions so that the employees can use the knowledge and abilities learnt at their workplace after training (e.g. Blume *et al.*, 2010; Chatterjee, Pereira & Bates, 2018; Grossman & Salas, 2011; Lim & Johnson, 2002; Martin, 2010).

Regarding the second set of factors, supervisors support and peer support are the factors that have a broader consensus. The assistance and guidance offered by supervisor during the transfer process enhance the possibilities of learning transfer (e.g., Burke & Hutchins, 2008; Hawley & Barnard, 2005; Gegenfurtner *et al.*, 2009; Grossman & Salas, 2011; Velada *et al.*, 2007). Peer support is also broadly supported by research on training transfer and refers to assistance and collaboration relationships among peers and group work after training (e.g. Gegenfurtner *et al.*, 2009; Homklin, Takahashi & Techakanont, 2014; Reinhold, Gegenfurtner & Lewalter, 2018; Van den Bossche, Segers & Jansen, 2010).

## 3. Method

### 3.1. Context and participants

The Public Administration Institute of Andalusia (*Instituto Andaluz de Administración Pública*, IAAP) is a public organization that provides a training service to the estimated 50,000 employees of the Public Administration in Andalusia. The IAAP has a qualified team of training professionals in charge of the training management and a team of external professionals from different fields, selected as experts, who act as trainers in the training programs planned by training managers. These external professionals are not professional trainers; almost all of them are employees of the Public Administration of Spain. The latter were the informants of this study since

they play an essential role in the design and implementation of training programs (Burke & Hutchins, 2008).

All the trainers who had acted as teachers in the training programs provided by the IAAP in the last three years (609 trainers) received an email invitation to complete an online survey; only 300 trainers submitted the questionnaire completed (49.3%). Anonymity of respondents was guaranteed.

Sixty per cent of the participants were male and 93.3% had university degrees. The average age of the respondents was 44.9 (SD= 8.66). The trainers had been working an average of 13.3 (SD = 8.85) years in their professional field and they have been acting as trainers in training programs an average of 10.2 years (SD = 8.40); nevertheless, thirty six per cent of the participants have not been trained on training.

### 3.2. Instrument

It was decided to create an *ad hoc* instrument for two reasons. On one hand, it was necessary to contextualize the research findings in the specific cultural characteristics of public servants training in Spain. On the other hand, because the few studies on the trainers' view on those factors affecting training transfer used either text-based surveys (Hutchins and Burke, 2007; Hutchins, 2009) or a questionnaire based on Human Resources managers' opinions (Donovan & Darcy, 2011).

Upon reviewing the transfer factors detected by research which are relevant to the trainers' perspective, we drafted a questionnaire including 19 items to know to which extent trainers believe each factor affects training transfer (1 meaning "No impact" and 5 meaning "Greatest impact"). In order to assure that survey items were representative of the culture of employees training in the Spanish public service, the questionnaire was analyzed by five training managers of the IAAP. They proposed to change the wording of several items. It was also decided that the questionnaire was completed by three open-ended questions so that the trainers could add other elements related to trainees' characteristics, training design and work environment, which affect training transfer on the basis of their experience and judgment.

### 3.3. Data analysis

The reliability of the instrument was assessed by calculating the Cronbach's alpha coefficient; it was measured at 0.85. Descriptive statistics were computed for all items and a principal components analysis (PCA) was used to find whether the original variables (elements affecting training transfer) are organized in a particular way reflecting latent variables (conceptions of effective training). The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.86 and the Bartlett's Test of Sphericity was statistically significant ( $p < 0.001$ ). One item with low communalities was eliminated ("Opportunities to use new knowledge and abilities in the workplace").

Textual data obtained from the open-ended questions was analyzed and eighteen categories emerged classified according to the three training inputs. These categories reflect variables affecting transfer openly expressed by the trainers. The trainers' answers were coded, counted and their content was analyzed (Miles, Huberman & Saldaña, 2014).

#### 4. Results

Descriptive statistics regarding the trainers' perception of the training practices and personal and contextual variables affecting transfer are reported in Table 1. Eight of the ten most influential factors are related to training design while the four least influential factors are: the characteristics of the learning culture of Public Administration, the supervisors' support –both related to the contextual dimension–, the trainees' motivations to participate in training, and the evaluation of what trainees have learnt and transferred in their job. In relation to the open-ended questions, a total of 640 individual responses corresponding to 257 trainers were obtained. The content analysis revealed that the open-ended questions were used by trainers basically to stress the main barriers to transfer they perceived in the particular context of public employees training. Fifty-three per cent of the responses correspond to elements related to the training design categorized into 10 training practices, 28.9% of them refer to the characteristics of work environment classified into 5 categories and the responses related to the trainees' characteristics represent 17.8% and make reference to three aspects. The frequencies of responses grouped by category and dimension are reported in Table 2. These first findings reflect that the trainers' view on effective training is focused more on the elements related to training design than on the influence of personal and contextual variables. Given the extension of the textual data obtained, the results of the questionnaire and the open-ended questions are analyzed jointly and only the most remarkable data are presented.

**Table 1.** Training practices and personal and contextual variables influencing transfer from the trainers view

<b>Training practices</b>	<b>Mean</b>	<b>SD</b>
Employees participating in analysis of training needs	4.30	.61
Supervisors participating in analysis of training needs	3.71	.86
Training framing	4.51	.51
Selection of trainees	4.10	.76
Aligning training to organizational goals	4.08	.79
Delivery format using workplace as learning space	4.24	.72
Training content validity	4.44	.54
Instructional design	4.19	.69
Trainer's teaching ability	4.37	.56
Quality of training materials	3.94	.72
Follow-up strategies	3.52	.91
Evaluation of learning and transfer outcomes	3.01	.96
Participants' satisfaction	4.38	.55
Learning outcomes achieved by trainees	4.09	.64

<b>Personal and contextual variables</b>	<b>Mean</b>	<b>SD</b>
Trainees' pre-training motivations	3.90	.77
Opportunities to use	4.22	.62
Peer support	4.14	.69
Supervisors' support	3.97	.89
Learning culture	2.83	.93

Research findings and the trainers surveyed agreed that the usefulness of training content is one of the most influential factors on training transfer. Nevertheless, several discrepancies between research findings and the trainers' view have been found. Training framing is not a particularly relevant factor in the research on training transfer but, in this study, was considered by trainers as the most influential factor. They probably noticed that training framing was a problem in the context of the training of public employees in Andalusia. On the other hand, the trainers also attached a great impact on transfer to the trainees' satisfaction, which ranked third, and which is notably greater than that attached to the learning outcomes, which ranked eleventh. However, research findings have repeatedly confirmed that the trainees' satisfaction is not linked to transfer whilst the participants' resulting learning is a key factor.

The trainer's teaching ability is seen as the fourth most influential factor by the trainers; in textual data, the trainers referred to the lack of training to act as a trainer as an important transfer barrier.

With regard to the analysis of the training needs, the trainers believed that the employees' participation as informants has a greater impact on training effectiveness than their supervisors' participation –which ranked fifth and sixteenth respectively–. In other words, the needs detected by the employees lead to a more effective training than the needs for training assessed by their supervisors. They also believed that peer support makes training transfer possible to a greater extent than their supervisors' support, while, in textual data, 52 trainers pointed out that the lack of support from supervisors is a significant barrier to training transfer in the context of Public Administration.

The two factors related to training design that have a lesser impact on transfer, from the view of the trainers surveyed, were two post-training transfer factors: the follow-up strategies and the evaluation of the participants' learning and transfer outcomes. Both practices are barely used in the training system studied. However, 'follow-up' was the second factor that was referred to more frequently by the trainers (72). These subjects pointed out that the absence of trainer support to trainees during the process of transfer is one of the major barriers to transfer.

As shown in both quantitative and textual data, the factor linked to the opportunities to use what participants have learnt from training in their job was regarded by the trainers as the most influential factor related to work environment. On the other hand, they believed that the characteristics of the learning culture of the Public Administration is the factor having a lesser impact on training transfer of all the factors proposed in the questionnaire. In fact, it is the only item having a mean below 3. Nevertheless, in open-ended responses, there are 46 trainers who described the organizational culture of Spanish public administrations as an obstacle to training

transfer because, they asserted, it does not assume the strategic role of training and it takes an individualistic approach to training and work.

**Table 2.** Frequencies of the responses to open-ended questions by category

<b>Dimension</b>	<b>Category</b>	<b>f</b>	<b>%</b>
Trainees' characteristics	Motivations to participate in training	61	9.5
	Attitude towards change	30	4.7
	Heterogeneity	23	3.6
Training Design	Selection of trainees	81	12.7
	Follow-up strategies	72	11.2
	Analysis of the training needs	34	5.3
	Training content	31	4.8
	Training management	30	4.7
	Training-for-trainer	29	4.5
	Instructional design	23	3.6
	Training delivery format	22	3.4
	Training evaluation	11	1.7
	Training schedule	8	1.2
Work environment	Opportunities to use	53	8.3
	Supervisor support	52	8.1
	Learning culture	46	7.2
	Rewards system	23	3.6
	Peer support	11	1.7

The trainees' pre-training motivations have moderate influence on training transfer from the view of the trainers surveyed (mean below 4 and it ranked fifteenth). In textual data, three factors related to the trainees' characteristics were proposed by the trainers. Trainees' motivations to participate in training and their attitude to change were considered as transfer barriers resulting from certain characteristics of Public Administration work environment: the system of incentives for training used –based on external rewards– and its learning culture. The third trainees' characteristic is the heterogeneity of learners. They claimed that the differences in the abilities, needs and charges among the attendees prevent trainers from assuring the usefulness of the training content. This characteristic is linked to the selection of trainees; in textual data, this factor was the most frequently referred to by trainers (81). The absence of appropriate requirements related to the participants' professional abilities and posts for selecting the employees who are to attend training programs was pointed out by trainers as a critical barrier to transfer.

A principal component analysis was carried out in order to explore how the transfer factors included in the questionnaire are interrelated from the trainers' point of view. This PCA revealed the presence of five factors with Eigenvalue above 1, explaining 56.4 per cent of the total variance. It was decided to retain the five factors and a Varimax rotation was performed. The rotation solution can be seen in Table 3.

The first rotated component, which amounted to 14.6% of the total variance, dealt with six factors affecting transfer which reflect an understanding of effective training focused on a design of the training event that ensure trainees' satisfaction (Cronbach's  $\alpha = .75$ ); i.e., training will be more likely to be transferred to the workplace if it meets the employees' needs, is useful to them, offers them realistic information about the training program, and is satisfactory to them thanks to, among other factors, the good performance of a competent trainer who uses suitable methods. The second rotated component (Cronbach's  $\alpha = .73$ ), which amounted to 13% of the total variance, included four factors which express a concept of effective training focused on the use of the workplace as a learning space, where trainers, supervisors and peers provide support each other during the process of transfer.

The third component amounted to 11.1% of the total variance and included three factors that show a concept of effective training based on the responsibility for training outcomes (Cronbach's  $\alpha = .62$ ); that is, training will be more effective if the organization holds trainers and trainees accountable for training outcomes through evaluation and the quality of the training materials provided by the trainers is guaranteed.

**Table 3.** Varimax rotated factor matrix

	Components				
	1	2	3	4	5
Employees participating in analysis of training needs	<b>.51</b>	.22	-.12	.28	.08
Training framing	<b>.53</b>	.25	.26	.31	-.14
Training content validity	<b>.74</b>	.14	-.05	.19	.08
Instructional design	<b>.48</b>	.23	.31	.19	.05
Trainers' teaching ability	.68	-.01	.32	-.03	-.02
Participants' satisfaction	<b>.63</b>	.07	.27	.11	.01
Delivery format using workplace as learning space	-.02	<b>.61</b>	.24	.41	-.31
Follow-up strategies	.01	<b>.74</b>	.38	.08	-.13
Peer support	.21	<b>.76</b>	.08	-.02	.14
Supervisors' support	.27	<b>.64</b>	-.08	.03	.37
Quality of training materials	.24	.17	<b>.67</b>	.07	-.09
Evaluation of learning and transfer outcomes	.05	.16	<b>.78</b>	.14	.11
Learning outcomes achieved by trainees	.33	-.01	<b>.51</b>	.23	.20
Supervisors participating in analysis of training needs	.13	.17	.19	<b>.63</b>	.11

	Components				
	1	2	3	4	5
Selection of trainees	.08	.07	.16	<b>.75</b>	.01
Aligning training to organizational goals	.29	.30	.22	<b>.45</b>	.25
Trainee's pre-training motivations	.30	-.15	-.04	<b>.53</b>	.08
Learning culture	-.00	.08	.10	.15	<b>.87</b>

Note: The values of rotated factor loadings  $> .45$  are written in bold.

The fourth component amounted the 11% of the total variance and dealt with four factors which reflect an understanding of effective training as one that places the interests, needs and goals of the organization at the heart of training planning (Cronbach's  $\alpha = .62$ ); i.e. making decisions on the basis of the training needs perceived by the supervisors, aligning training to the organization's goals, selecting what employees must attend each training program, and accordingly acting on the reasons why employees decide to participate in training programs.

The last component found, which amounted the 6.7% of the total variance, included one only factor, the learning culture of the Public Administration, which reflects an ecological approach to effective training. That is, training transfer depends on the values, beliefs, and behaviors associated with innovation and improvement that organizational culture embodies.

The items were grouped together and the means scores for the new five factors were calculated. The conception of effective training focused on a satisfying design of training event was considered as the most influencing on training transfer ( $M=4.37$ ,  $SD= 0.38$ ). The understanding focused on the use of the workplace as a learning space was considered as the second most effective ( $M=4.07$ ,  $SD= 0.55$ ), closely followed by those conception focused on organizational demands ( $M=4.01$ ,  $SD= 0.49$ ). The accountability-focused effective training understanding was estimated less influential ( $M=3.87$ ,  $SD= 0.56$ ) and the ecological conception was perceived to be the least influential ( $M=2.83$ ,  $SD= 0.93$ ).

## 5. Discussion/Conclusions

The results show that the trainers' view of training effectiveness is primary focused on those elements closer linked to training practices and is based on their own experience in the context of Spanish public employees training. Thus, it is possible to detect the influence of specific characteristics of training culture of this training system on their perception of the potential that certain elements have to enhance transfer.

Their responses reflect an individualistic view of training. They believed that training effectiveness mainly lies in pleasing those employees who attend training courses, to a quite lesser extent in responding to the needs and goals of the organization, and it is barely influenced by the organization's learning culture. This individualistic view of training is the result of a training culture that is also individualistic; in the context of training system analyzed, the decision to participate in training programs is a personal choice, there is a system of incentives for training based on

external rewards only for participation and the impact of training on organizational performance is not evaluated. It is likely that this individualistic training culture is the result of a work culture that is also individualist and models the collective beliefs of its members (Yang, Wang & Drewry, 2009) with regard to training too. As Chatterjee, Pereira and Bates (2018) concluded, different types of organizational culture support certain learning factors in a differentiated way.

The results suggest the absence of a sense of responsibility for training outcomes. The assumption that effective training is one that pleases the trainees is also derived from and supported by the way the training programs are evaluated. Saks and Burke (2012) concluded that the level of evaluation criteria used in an organization is important to training transfer because it affects the level of responsibility assumed by the trainers, trainees and supervisors with regard to the training outcomes. If the evaluation is reduced to a rating of the trainee's satisfaction, as it is the case of public employees training in Andalusia, the trainers shall focus on pleasing the trainees with the training received, not on the fact that they learn or transfer. Moreover, the trainers believed that evaluating learning and transfer outcomes has minor impact on training effectiveness and the conception of effective training that focuses on accountability has a weak influence on transfer.

A centralized conception of training is other characteristic of the training culture of public employees in Spain that affects the trainers' view on training effectiveness. The critical influence of the training framing and the selection of trainees in accordance with the employees' abilities and post on training transfer, in the trainers' view, are two clear examples of this influence. Training planning and management operations are concentrated in few hands, the professional trainers, who try to attend a vast and very diverse staff, while the instructional design and delivery are the responsibility of non-professional trainers. The result is a very centralized training system which offers a basic general training and little chance of specialization for employees and, for this reason, there is no selection criteria or the training framing offers a generic information. The trainers perceived that the heterogeneity of learners is a barrier to learning and transfer because there is no connection between the training goals and the attendees' expectations, needs and abilities. This problem has been detected in Spanish sectorial training by Rigby and Ponce-Sanz (2016) and Rubio, Millán, Cabrera, Navia and Pineda (2011). In this regard, it would have been necessary to explore the professional trainers' view of training effectiveness; this was a clear limitation of this study.

Furthermore, the open-ended responses showed that the trainees' personal characteristics are seen by the trainers as a consequence of certain characteristics of work environment. In particular, the attendees' pre-training motivations and attitude to change are derived from the rewards system used by the organization and its learning culture, respectively. This is consistent with the results of recent studies that conclude that the factors related to work environment are the best predictors of employees' job attitude (Hassan, 2014; Johari & Yahya, 2016) and, consequently, of their attitude to training. In addition, peer and supervisor support were seen, not as fixed characteristics of the work environment, but as elements of an approach to effective training based on the use of workplace as a learning space where peers and supervisors work collaboratively, with trainers support, during the process of transfer. This approach reflects the trainers' idea of effective training should contribute to creating supportive environments in public organizations, in opposition to the individualistic and centralized approach used.

Finally, further research on the understandings of effective training derived from the way trainers associated the transfer factors proposed in the questionnaire would be necessary, in order to test whether or not these concepts are linked to the specific context of public servants training or they form a common conceptual framework, independent of sectorial characteristics, instead. Anyway, the five approaches to effective training obtained have a practical value since they help trainers think how to encompass the isolated transfer factors detected by research according to lines of training intervention, not only to the type of training input, and they provide guidelines for reviewing training schemes and improving their efficacy, since a training model that balances these five approaches would enhance the transferability of training. Research on training effectiveness should be more aligned with the trainers' concerns if its findings are to be applied in organizations in order to transform the culture and practice of training.

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