Journal for Educators, Teachers and Trainers
The PROFESIOLab electronic, peer-reviewed, open-access Magazine

ISSN 1989 - 9572

A study of the potential of training to be transferred to the workplace

Un estudio del potencial de la formación para ser transferida al puesto de trabajo

Cristina Granado,

Universidad de Sevilla, España

Journal for Educators, Teachers and Trainers, Vol. 7 (1)

http://www.ugr.es/~jett/index.php

Fecha de recepción: 29 de febrero de 2016

Fecha de revisión: 21 de abril de 2016

Fecha de aceptación: 29 de abril de 2016

Granado, C. (2016). A study of the potential of training to be transferred to the workplace**.**. *Journal for Educators, Teachers and Trainers*, Vol. 7(1). 89 – 100.

Journal for Educators, Teachers and Trainers
The LabOSfor electronic, peer-reviewed, open-access Magazine

Journal for Educators, Teachers and Trainers, Vol. 7 (1)

ISSN 1989 – 9572

http://www.ugr.es/~jett/index.php

A study of the potential of training to be transferred to the workplace

Un estudio del potencial de la formación para ser transferida al puesto de trabajo

Cristina Granado, Universidad de Sevilla, España
cgalonso@us.es

Abstract
In order to improve the effectiveness of the training provided by the agency in charge of training of public servants in the region of Andalusia (Spain), trainers were surveyed about what is the utilization of design-related transfer factors they do when they design training courses. Thus, the extent to which training is designed to be transferred can be analyzed. The results suggested that trainers focused their interventions more on the trainees' satisfaction with the level and usefulness of the learning acquired than on the learning transfer to workplace. In addition, this study allowed us to gain better understanding of the perspective of trainers on how training design elements are associated. Four transfer-focused training approaches were detected, whose concomitant use varies depending on training objectives. It is concluded that the study of the transferability of training is useful to detect weaknesses and strengths in training and proposals for improvements and lines of inquiry are suggested.

Resumen
Con el fin de mejorar la eficacia de la formación ofrecida a los empleados públicos en Andalucía (España) por la organización responsable, se encuestó a los formadores sobre el uso que hacen de los factores de transferencia relacionados con el diseño de la formación cuando planean cursos. Así, es posible analizar en qué medida la formación es diseñada para ser transferida. Los resultados sugieren que los formadores centran más su intervención en la satisfacción de los empleados por el nivel y utilidad del aprendizaje adquirido que en su transferencia al puesto de trabajo. Además, este estudio permitió obtener una mayor comprensión de la perspectiva de los formadores sobre cómo se combinan los elementos del diseño. Así, se detectaron cuatro enfoques de formación centrados en la transferencia, cuyo uso conjunto varía en función de los objetivos de formación. Se concluye que el estudio del potencial de la formación para ser transferida resulta útil para detectar fortalezas y debilidades en la formación y se sugieren propuestas de mejora y líneas de investigación.

Keywords
Professional training; Transfer of training; Training methods; Evaluation

Palabras clave
Formación continua; Transferencia de la formación; Métodos de formación; Evaluación.

1. Introduction

Training is seen as an essential tool for the improvement of employee performance and for the survival and success of the organizations in a changing world. Determining if the training really gets these attainments and how it is possible to improve them has been the goal of both training effectiveness studies and training evaluation efforts. Training evaluation is in charge of assessing the benefits derived from training, with a clear vocation towards accountability, while training effectiveness studies have been focused on detecting what variables can be affecting training impact with a clear diagnostic and improvement-oriented vocation (Holton, Bates & Ruona, 2000).

Most training effectiveness studies use the transfer of training as the main evaluation measure of the impact of training (Alvarez, Salas & Garofano, 2004). Transfer of training is defined by Baldwin and Ford (1988) as 'the degree to which trainees effectively apply the knowledge, skills, and attitudes gained in the training context to their jobs' (p. 63). Although other outcomes are also valuable criteria of training effectiveness, such as trainee satisfaction and level of learning, the transfer of training is considered the most powerful indicator to evaluate the effects of training, because it requires the trainees to learn job-related competencies (Velada & Caetano, 2007) -although learning does not guarantee that the transfer of training happens (Hutchins & Burke, 2007)- and because it leads to improvements in employee competencies and, consequently, in organizational performance (Kauffeld & Lehmann-Willenbrock, 2010).

In Spain, since the establishment of Foundation for the Training of Employees (*Fundación para la Formación Continua*) in 1993, a spectacular growth of training plans and training agencies has taken place. The efforts have been focused on the quantitative development of employee training systems and on the consolidation of training habits throughout working life and in organizations. But the impact of these efforts is unknown, because training evaluation has been a deficient practice (Pineda-Herrero, Moreno-Andrés & Durán-Belloch, 2014). In an context of economic crisis, there is a need for measures aimed at reducing expenditures that has driven the government and the companies to question the cost-effectiveness of the approach to training used until now, more interested in the number of workers who have attended any training initiative or in the number of training courses delivered, and to prioritize training impact in the workplace (Renta-Davis, Jiménez-González, Fandos-Garrido & González-Soto, 2014). The concern for transfer of training and for its evaluation is making a dominant appearance on the stage.

In terms of transfer, the improvement of training is not just a matter of introducing new measures linked to transfer rates into training evaluation design, but it is also about introducing changes in the design and delivery of training. For that purpose, the existing training transfer research literature is very useful. The so-called 'transfer of training problem' –the gap between training and workplace performance (Burke & Hutchins, 2007) - has driven researchers to detect the factors that contribute to enlarge or to bridge this gap. These factors are categorized in the three training inputs identified by the Baldwin and Ford's (1988) model: characteristics of participants, training design and work environment. The considerable number of factors affecting the transfer of training detected makes it difficult for organizations to pinpoint and manage the factors that are most critical in their case (Cheng & Hampson, 2008; Grossman & Salas, 2011). Moreover, given the ethical issues involved in selecting trainees on the basis of their personal characteristics, many transfer factors cannot be handled to enhance transfer; another factors linked to work environment are difficult to change in order to increase training impact. If the purpose is improving the training of employees, it is necessary to focus on elements that can be handled through training (Russ-Eft, 2002). In this regard, training design-related transfer factors can be deliberately managed more easily.

As Velada, Caetano, Michel, Lyons and Kavanagh (2007) pointed out, training efforts should be made to ensure the transfer of training and therefore organizations should design training programs to include those training interventions that are likely to increase transfer. The so-called 'transfer design' refers to what degree training has been designed in such a way that both meets job requirements, ensures learning outcomes, and provides trainees with the ability to

transfer learning back to the job (Holton, Bates & Ruona, 2000). The idea of 'transferability of training' is derived from the transfer design concept. The transferability of the training provided by any training agency will be determined by the extent to which training is designed for being transferred, that is, by the use of training interventions which are pointed out by research on training effectiveness as transfer enhancers by trainers.

The study of transferability of training entails a diagnostic evaluation of the potential that the training provided has for facilitating the training content transfer to the workplace, and consequently it can address proposals of change. Moreover, the improvement of transferability should be a priority for any training agency and should be undertaken upon when data on the impact of training are not available.

On the other hand, the research on training effectiveness found many training interventions that, considered on an individual basis, influence the transfer of training to the workplace. But a particular training intervention, no matter how efficient it has proved to be, may be insufficient for learning and transferring in view of the complexity of transfer process (Blume, Kard, Baldwin & Huang, 2010). A series of effective training interventions, supplementing the effects thereof, would be necessary in order to enhance transfer possibilities (Culpin, Eichenberg, Hayward & Abraham, 2014). But there is no research on the way in which these training interventions are combined by the trainers when they plan training courses.

In this work, a study of the transferability of training provided by the agency in charge of the public servants training in the region of Andalusia (Spain) – the Andalusian Public Administration Institute (*Instituto Andaluz de Administraciones Públicas, IAAP*) was carried out. The main goal of this study was to explore how trainers use training interventions affecting the effectiveness of training, i.e., what kind of training interventions trainers decide to use in order to meet training objectives and the degree to which transfer mechanisms are included in the intervention design of the training that they provide (Alvarez, Salas & Garofano, 2004; Velada *et al*., 2007). Thus, it is possible to detect strengths and weaknesses that guide changes in order to improve the transferability of training provided by this agency.

On the other hand, this study attempted to explore if, from trainers perspective, effective training interventions can be grouped in some way, i.e. discover if the training design-related transfer factors are organized by the trainers in a particular way, reflecting latent training methodological approaches. Since the effectiveness of training interventions can depend on learning goals, i.e., whether training is focused on learning job-related skills or on acquiring knowledge aimed at understanding and acting differently in work environment (Lim & Johnson, 2002; Nikandrau, Brinia & Bereri, 2009), another goal of this study was to determine whether the type of training objective affects the use of diverse training approaches by trainers.

2. Method

2.1. Context and participants

The IAAP is a public organization which provides a training service to the nearly 50,000 employees of the Public Administration of Andalusia. The IAAP counts with a qualified team of training professionals in charge of the analysis of training needs, overall planning, management and evaluation. In order to develop the overall planning, the IAAP also has a fairly stable team of external professionals from different fields (economics, statistics, information technologies, law and so on), selected as experts, who are hired to act as teachers in the training courses. These external professionals are not professional trainers but they play an essential role throughout the instructional design process (Burke & Hutchins, 2008). Therefore, in order to study the transferability of training provided by this agency, a key task was to know what training interventions facilitating transfer these trainers-teachers make use when they design and deliver training courses.

All trainers who had acted as teachers during the last three years in the training courses provided by the IAAP received an email invitation to complete an online survey on effective training interventions they tend to use. The questionnaire completed was sent in anonymously. The response rate was calculated at 49.3% (300/609).

Of the 300 study participants, 60% were male and 93.3% had university degrees. The average age of the respondents was 44.9. Participants had been working an average of 13.3 years in their professional field and 10.2 years participating as trainers in training courses. It is remarkable that 36.3% of participants have not been trained on training.

2.2. Training design-related transfer factors used as indicators of transferability

With a view to developing a questionnaire which allowed us to ask trainers´ use of training practices enhancing transfer -and thus, to study the transferability of the training provided by them-, research literature on training design-related transfer factors was reviewed. Only those effective training interventions that fall within the decision-making spheres of trainer as teacher were selected. Three lines of training intervention design were used to organize the inventory of effective practices used as indicators:

a) The trainees' organization and workplace characteristics (needs, scenarios, challenges and tasks) are used by trainers to design training courses. It includes effective training interventions such as:

- Trainers set job performance-related goals, i.e. trainers set training objectives oriented to improve the employees' performance in their workplace (Hutchins & Burke, 2007).

- Trainers clearly inform trainees what performance is expected to occur on the job when the trainees apply training content at their workplace; thus, trainees notice a clear link between the training content and their workplace (Burke & Hutchins, 2007; Gegenfurtner, Veermans, Festner & Gruber, 2009).

- Trainers select training content relevant to the job, i.e. the trainees must see a close relationship between the training content offered by the trainer and the tasks they encounter on the job (Burke & Hutchins, 2007; Gergenfurtner, Veermans, Festner & Gruber, 2009; Holton, Bates & Ruona, 2000; Liebermann & Hoffmann, 2008).

- Trainers set training objectives which are aligned with organizational goals (Alvarez, Salas & Garofano, 2004; Burke & Hutchins, 2007; Donovan & Darcy, 2011; Lim & Johnson, 2002).

- Trainers use job learning situations (cases, examples, problems) that reflect the job context where learning is to be applied (Burke & Hutchins, 2007; Grossman & Salas, 2011).

b) Trainers use training strategies in accordance with adult learning principles (Alvarez, Salas & Garofano, 2004; Baldwin & Ford, 1988; Blume et al., 2010; Culpin et al. 2014; Donovan & Darcy, 2011). It contains the following effective training interventions:

- Trainers detect trainees' learning needs to set learning objectives accordingly (Lim & Johnson, 2002; Martin, 2010; Nikandrau, Brinia & Bereri, 2009).

- Trainers permit discussion and the exchange of current knowledge and experiences by the attendees (Kauffeld & Lehmann-Willenbrock, 2010; Leberman, McDonald & Doyle, 2016).

- Trainers are aware of the diversity of learners and, accordingly, they use a wide range of different methodologies -a complex methodology- in each learning situation (Baldwin & Ford, 1988; Culpin et al., 2014; Machin & Fogarty, 2003).

- Trainers use teamwork as a learning situation (Leberman, McDonald & Doyle, 2016). In order to improve transfer possibilities, organizations should create work environments that promote collaboration among workers (Hawley & Barnard, 2005; Massenberg, Spurk & Kauffeld, 2015). To that end, the use of group activities during training offers opportunities to practice the skills needed for successful collaboration (Culpin et al., 2014; Homklin, Takahashi & Techakanont, 2014) and, therefore, teamwork-based learning situations improve, indirectly, the possibilities of transfer.

c) Trainers use methods and instructional techniques that facilitate the transfer of training when they plan learning interventions (see reviews such as Burke & Hutchins, 2007; Russ-Eft, 2002). It includes the following effective practices:

- Trainers model ideas or behaviors that are to be taught by them (Alvarez, Salas & Garofano, 2004; Burke & Hutchins, 2008; Grossman & Salas, 2011; Russ-Eft, 2002).

- Trainers use the guided discovery method. This active learning method forces trainees to explore and experiment with the task to infer and learn concepts, rules and strategies (Burke & Hutchins, 2007; Russ-Eft, 2002).

- Trainers provide opportunities to practice new skills and knowledge (Alvarez, Salas & Garofano, 2004; Kaufield & Lehmann-Willenbrock, 2010; Libermann & Hoffmann, 2008; Lim & Johnson, 2002; Russ-Eft, 2002). Trainees can be asked in practical tasks to apply training content in the training context. But they can be asked to apply it in their job context or plan how they will use new skills and knowledge at their workplace (development of a plan of action) as follow-up techniques (Martin, 2010).

- Trainers use variable examples, including positive and negative examples (Burke & Hutchins, 2007; Machin & Fogarty, 2003). These training interventions lead to improve generalization to novel situations (Russ-Eft, 2002).

- Trainers use feedback, i.e. trainers provide information to the learner on his/her current and desired performance in training tasks during training (Burke & Hutchins, 2007, 2008; Culpin et al., 2014; Russ-Eft, 2002; Van den Bossche, Segers & Jansen, 2010) or post-training (Velada et al., 2007; Martin, 2010).

- Trainers assess the trainees' learning outcomes after training. Trainees will be more motivated to learn and learning retention will increase if they know that they are accountable for the training they receive (Burke & Hutchins, 2008; Kontoghiorghes, 2001).

2.3. Procedure for developing the questionnaire

With these indicators, an initial questionnaire was elaborated containing 19 Likert-type items to know training interventions facilitating transfer which are used by trainers (1 meaning 'Never' and 5 meaning 'Usually'). Since employee training perspectives may vary depending on business sector (Donovan & Darcy, 2011), critical to this study was the development of survey items representative of culture of employee training in public sector. For this reason, the questionnaire was analyzed by five professional trainers of the IAAP. They proposed to change the wording of several items and two new items were included. One of these items dealt with the use of teamwork as a learning situation because there was a great interest in improving the markedly individualistic culture of Public Administration organizations in Spain. The use of teamwork has an indirect impact on the transfer of training, as it has already been mentioned. The second item dealt with the use of the lecture as instructional technique; it is not a method supporting transfer of training but the professional trainers thought that it was usually used by trainers and the questionnaire needed to reflect the practices of the latter. Finally, the questionnaire was composed of 21 items, but one of them does not reflect any transfer factor.

One additional question about the importance given to each type of learning objective was added. Trainers were requested to prioritize (main objective, secondary objective or not an objective) both training objectives (acquiring knowledge aimed to understanding and acting differently in workplace and learning job-related skills) in the courses they designed.

2.4. Data analysis

The reliability of the instrument was assessed via the calculation of Cronbach's alpha coefficient for all Likert-scale items, excluding the item dealing with the use of lectures since it is not related to transfer; coefficient alpha was measured at 0.87.

Descriptive statistics were computed for all variables. Later, the 21 items from the questionnaire were subject to a principal components analysis (PCA) using SPSS to find if the original variables (training interventions) are organized in a particular way reflecting latent variables (training approaches). Three items with low correlations and low communalities were eliminated ('I set job performance-related goals', 'I clearly inform attendees what they must do and produce on the job as a result of training', 'I use the lecture as the main methodological strategy'). Later, a multivariate analysis of variance (MANOVA) was conducted to examine whether the use of the training approaches by trainers varies in function of the priority given to training objectives.

3. Results

Descriptive statistics about the training interventions frequency of use by trainers surveyed are reported in Table 1. Three teacher decision-making spheres have been used to display the results and, within each sphere, the items are ranked by mean value.

Mean value of four of the five items included in first decision-making sphere was greater than 4, therefore, trainers estimated that they are well aware of the trainees' organization and workplace characteristics when they design training courses. Nevertheless, 30.4% of trainers never or sometime set training objectives to meet trainees' organizational goals. Training interventions derived from adult learning principles showed a more moderate frequency of use in training design and delivery than prior dimension, but exhort the exchange of knowledge and experiences among attendees that was the most used intervention in this sphere. The use of teamwork as learning situation and the use of a complex methodology were not used or were utilized scarcely by nearly half of the trainers.

Table 1.
Means table (and SD) for the 21 items of the questionnaire

Use of organization and workplace characteristics	**Mean**	**SD**
I clearly inform participants what they must do and produce on the job as a result of training.	4.37	0.64
I use learning situations (examples, cases, problems) that resemble the trainees' job characteristics (tasks, challenges and scenarios).	4.33	0.68
I set trainees' job performance-related goals.	4.18	0.68
The training content I select is closely linked to the trainees' workplace needs.	4.06	0.76
The training objectives I set are aligned with the trainees' organizational goals.	3.35	0.89
Use of adult learning principles	**Mean**	**SD**
I encourage participants to exchange knowledge and experiences.	4.14	0.69
I provide participants with opportunities to discuss problems and perspectives.	3.93	0.85
I detect the trainees' learning needs in order to set learning objectives accordingly.	3.40	0.85
I use a variety of different teaching methodologies with a view to meeting the different demands of the diversity of trainees.	3.18	0.93

I propose assignments to work as a team.	3.14	1.00
Use of methods and instructional techniques	**Mean**	**SD**
I make variable examples of how to use training content.	4.37	0.64
I use the lecture as the main methodological strategy.	4.18	0.75
I propose exercises to practice training content in training contexts during training.	4.14	0.84
I model ideas or behaviors I teach (demonstrations).	3.98	0.85
I provide the trainees with feedback about their performance at practical tasks.	3.88	0.87
I make negative examples.	3.65	0.87
I use guided discovery method.	3.64	0.89
I propose activities to practice training content in the trainees' workplace.	3.33	0.97
I propose exercises in order to assess what trainees have learnt.	3.33	0.99
I ask trainees to plan how they will use new skills and knowledge in their workplace (plans of action).	2.75	0.98
I provide post-training coaching to the participants.	2.40	1,01

As regards the methods and instructional techniques, the frequencies of use were very variable. There were more trainers who used training interventions linked to in-the-room training process (lecture, to make examples, exercises to practice training content in-the room, demonstrations) more frequently. Those training interventions extending teaching action outside the classroom to support transfer process (post-training coaching, plans of action, activities to practice training content in workplace) were used less frequently. These less frequent three training interventions are strategies that make it possible to customize the learning transfer process to the specific characteristics of the trainees' workplace. This homogeneous treatment of learners can also be seen in a less frequent use of two adult learning principles: the detection of trainees' learning needs in order to set learning objectives accordingly and the use a variety of methods with a view in meeting diverse demands of the learners. Finally, assessing trainee learning was not a habitual practice among the trainers surveyed.

Regarding training objectives, learning new skills was identified as the critical objective by 53.7% of the trainers and gaining knowledge was the main objective for 49.3%. The very small number of trainers who chose the response 'Not objective' in each training objective drove us to eliminate these cases in subsequent analysis.

PCA was deemed appropriate: the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.87 and the Bartlett's Test of Sphericity was statistically significant ($p< 0.001$). PCA revealed the presence of four factors with Eigenvalue above 1, explaining 54.6 per cent of the variance in total. It was decided to retain the four factors and a Varimax rotation was performed. The rotation solution can be seen in Table 2.

The first rotated factor, which amounted to 18.3% the total variance, deals with six training interventions that involve carrying out, guiding and assessing practical tasks as a mean to promote learning and transfer. It was named 'task-focused approach'. The second rotated factor, which amounted to 15.3% of the total variance, includes six training interventions aimed at meeting the demands derived from the needs and the characteristics of specific learners and of their work contexts. It was called 'responsive approach'.

Table 2.
Varimax rotated factor matrix

Training interventions description	Factor			
	1	2	3	4
Exercises to practice in training context.	**.78**	.09	.17	-.01
Activities to practice at their workplace.	**.63**	.29	.19	-.07
Feedback on their performance of practical tasks.	**.78**	.12	.11	.05
Guided discovery method.	**.52**	.26	.41	.14
Assignments to work as a team.	**.55**	.28	-.06	.44
Exercises to assess what trainees have learnt.	**.64**	.07	.03	.23
Detecting trainees' needs in order to set objectives.	.29	**.54**	.11	.13
Training content is relevant to workplace needs.	-.07	**.63**	.26	.15
Training is aligned with organizational goals.	.02	**.66**	.14	.18
Development of plans of action.	.37	**.59**	-.01	.17
Post-training coaching.	.14	**.59**	.10	-.15
Meeting demands of diversity of learners through a complex teaching methodology.	.23	**.52**	.15	.10
Models of ideas or behaviors.	.20	.32	**.53**	-.30
Variable examples of how to use learning.	.35	.04	**.71**	.10
Learning situations that resemble job features.	.07	.27	**.69**	.17
Negative examples.	.00	.13	**.66**	.18
Opportunities to discuss problems and perspectives.	.11	.09	.19	**.72**
Encouragement to exchange knowledge and experiences among trainees.	.10	.19	.14	**.72**

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

The third factor of the Varimax rotated factor matrix, named 'modeling-focused approach', amounted to 11.9% of the total variance and included four training interventions aimed at giving trainees an insight of how to use the training content. The fourth and final rotated factor, which amount to 9.1% of the total variance, reflects a participative training approach. It was formed by only two training interventions: the trainer exhorts learners to exchange knowledge and experiences and the trainer provides attendees with opportunities to discuss problems and perspectives. This training approach involves seeing trainees as adults having their own career and formed opinion.

The items were grouped together according to the PCA and means scores for the new four factors calculated. The teaching approach more frequently used was the modeling-focused approach (*M*=4.1, *SD*= .65), closely followed by the participative one (*M*=4.04, *SD*= .77). Mean value of the task-focused approach was 3.74 (*SD*= .79). The responsive scheme was the least frequently used approach (*M*=3.36, *SD*= .69)

.

Since trainers indicated their intention of seeking both types of training objectives giving different priorities to them, significant effects of training objectives on the set of training approaches were sought through MANOVA. The extent of inequality of sample sizes was very small and the Box´s test showed that the assumption of homogeneity of covariance matrices was met (F=1.227, p= .183). The Shaphiro-Wilk test showed that multivariate normality is not fulfilled in all subgroups. With these conditions, Pillai´s trace was used as multivariate test which showed (anyway, four multivariate tests obtained the same F- and p-values) that the priority given to learning skills (F=7.423, p< .001) or to acquiring knowledge (F=3.863, p= .004), considered on an individual basis, did have a significant effect on all four training approaches together as dependent variables, but the interaction between independent variables had not effect. In other words, the concomitant use of training approaches is different when learning job-related skills is the main or a secondary goal of training courses and the same applies when the training objective is acquiring knowledge. But there are not differences when the interaction between knowledge and skills objectives is considered. Univariate tests for the effect of the training objectives on each of the dependent variables (Levene´s test verified the homogeneity of variances for all groups) showed that knowledge objectives had a significant effect on the

frequency with which the trainers used the participative approach (F=7.372, p= .007), the modeling-focused approach (F=7.335, p= .007), and the responsive approach (F=5.958, p= .015) but not on the use of task-focused approach. The trainers used these three approaches more frequently when acquiring knowledge was the main goal (I-J=0.235, p= .007; I-J=0.194, p= .007; I-J=0.189, p= .015; respectively). On the other hand, skills learning objectives had a significant effect on the frequency with which the trainers used the task-focused approach (F=22.914, p< .001), the responsive approach (F=16.488, p< .001) and the modeling-focused approach (F=9.973, p= .002), but not on the use of the participative approach. In this case, the trainers also used three approaches more frequently when learning skills was the main goal but the differences between means were larger (I-J=0.422, p< .001; I-J=0.313, p= .000; I-J=0.227, p= .002; respectively).

4. Discussion and conclusions

This study showed the usefulness of carrying out studies on the transferability of training provided by training agencies in order to identify strengths and weaknesses and to make decisions to improve training itself. Holton, Bates and Ruona (2000) stressed the significant potential of transfer inventories for identifying the problem of training transfer. In this case, the inventory used has been focused exclusively on training design-related transfer factors with the aim at knowing the use of these factors trainers do when they act as teachers in training courses.

In the case of the training of public servants in Andalusia, the study showed that trainers used more frequently those training interventions aiming at ensuring the usefulness of content training at the workplace of the employees and the learning of training content within the classroom. As mentioned above, both elements are powerful transfer factors but they may not be enough to ensure the transfer of training to workplace. In addition, it is necessary that trainers use teaching interventions that, as pointed out by Hutchins and Burke (2007), support integration of the knowledge and/or skills acquired at the workplace, since learning transfer implies learning outside the classroom, learning at the workplace (Eraut, 2004). Nevertheless, those strategies that allow learning to extend beyond the classroom were used less frequently. The same is true regarding those practices aiming at individualizing training in order to take into account the existing differences among attendees or aiming at increasing the capacity of employees to learn from practice itself. These lesser-used training interventions are strategies which support the transfer process of learning outcomes to specific circumstances under which learners work.

These weaknesses should consequently be addressed. On one hand, those strategies used less frequently by trainers may be a sign of the lack of knowledge of training transfer research findings, as Hutchins and Burke (2007) warned. Dealing with the training of trainers in transferability of training is a key measure to improve training effectiveness.

On the other hand, it seems that trainers focused their interventions more on the trainees' satisfaction than on the transfer of training. This view of training could have been strengthened by an evaluation of training that has been focused, to date, on the trainees' satisfaction with the level and usefulness of the learning acquired; as suggested by Burke and Hutchins (2008), the evaluation has an impact on what is valued as training outcome. Therefore, as long as training evaluation focuses on trainee satisfaction, trainers will keep focusing their training designs on this type of outcomes. It is necessary to introduce transfer rates in training evaluation design.

It should be noted, as a limitation of this work, that in order to study the transferability of training, not only the decisions made by trainers should be analyzed, but also those made by the training's planners and managers because many decisions that predetermine training courses falls to them; it has not been possible to perform that task in this study.

This study allowed us to gain better understanding of the perspective of trainers on how training design elements are associated. Four groups of effective training interventions were detected

that make up four types of transfer-based training approaches (participative, responsive, task-focused and modeling-focused approaches). This study tested that the trainers associate the training approaches differently depending on training objectives. The effect of the priority of knowledge objectives is significantly weaker than in the case of skills objectives. When trainers prioritize to learn job-related skills use more frequently training approaches committed to the transfer of training -except in the case of the participative approach-, than when trainers set to learn knowledge as the main goal of training courses. It should be stressed that the use of the task-focused approach is not linked to the objective of acquiring knowledge.

Nevertheless, one should be cautious when affirming that the training model used by trainers that give priority to skills objectives is more effective, because how the interaction among effective training interventions affects training transfer has not been dealt with by research on training effectiveness (Nikandrau, Brinia & Bereri, 2009; Tharenou, Saks & Moore, 2007). Therefore, it is necessary to carry out further in-depth studies on the effectiveness of these training approaches, selecting specific training courses and contrasting the use of transfer-focused training approaches, the priority of training objectives and the transfer rates that are achieved in different cases.

5. References

Alvarez, K., Salas, E. & Garofano, C.M. (2004). An integrated model of training evaluation and efficiency. *Human Resource Development Review, 3*(4), 385-416.doi:10.1177/1534484304270820

Baldwin, T.T. & Ford, J.K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology, 41*(1), 63-100.

Blume, B.D., Kord, J.K., Baldwin, T.T. & Huang, J.L. (2010). Transfer of training: a new meta-analytic review. *Journal of Management*, *36*(4), 1065-1105.doi:10.1177/0149206309352880

Burke, L.A. & Hutchins, H.M. (2007). Training transfer: An integrative literature review. *Human Resource Development Review, 6*(3), 263-296.doi:10.1177/1534484307303035

Burke, L.A. & Hutchins, H.M. (2008). A study of best practices in training transfer and proposed model of transfer. *Human Resource Development Quarterly, 19*(2), 107-128.doi:10.1002/hrdq.1230

Cheng, E.W.L. & Hampson, I. (2008). Transfer of training: A review and new insights. *International Journal of Management Reviews*, *10*(4), 327-341.doi:10.1111/j.1468-2370.2007.00230.x

Culpin, V., Eichenberg, T., Hayward, I. & Abraham, P. (2014). Learning, intention to transfer and transfer in executive education. *International Journal of Training and Development*, *18*(2), 132-147.doi:10.1111/ijtd.12033

Donovan, P. & Darcy, D.P. (2011). Learning transfer: the views of practitioners in Ireland. *International Journal of Training and Development*, *15*(2), 121-139.

Eraut, M. (2004). Transfer of knowledge between education and workplace settings. In H. Rainbird, A. Fuller & A. Munro (Eds.), *Workplace Learning in Context* (pp. 201-222). London: Routledge.

Gegenfurtner, A., Veermans, K., Festner, D. & Gruber, H. (2009). Integrative literature review: Motivation to transfer training. *Human Resource Development Review, 8*(3), 403-423.doi:10.1177/1534484309335970

Grossman, R. & Salas, E. (2011). The transfer of training: what really matters. *International Journal of Training and Development, 15*(2), 103-120.

Hawley, J.D. & Barnard, J.K. (2005). Work environment characteristics and implications for training transfer: a case study of the nuclear power industry. *Human Resource Development International*, *8*(1), 65-80.

Holton, E.F. III, Bates, R.A. & Ruona, W.E.A. (2000). Development of a generalized learning transfer system inventory. *Human Resource Development Quarterly, 11*(4), 333-359.

Homklin, T., Takahashi, Y. & Techakanont, K. (2014). The influence of social and organizational support on transfer of training: evidence from Thailand. *International Journal of Training and Development*, *18*(2), 116-131.doi:10.1111/ijtd.12031

Hutchins, H.M. & Burke, L.A. (2007). Identifying trainers' knowledge of training transfer research findings – closing the gap between research and practice. *International Journal of Training and Development, 11*(4), 236-264.

Kauffeld, S. & Lehmann-Willenbrock, W. (2010). Sales training: effects of spaced practice on training transfer. *Journal of European Industrial Training*, *34*(1), 23-37.doi:10.1108/03090591011010299

Kontoghiorghes, C. (2001). Factors affecting training efficiency in the context of the introduction of new technology –a US case study'. *International Journal of Training and Development*, *5*(4), 248-260.

Leberman, S., McDonald, L. & Doyle, S. (2016). *The transfer of learning. Participants´ perspectives of adult education and training*. New York: Routledge.

Liebermann, S. & Hoffmann, S. (2008). The impact of practical relevance on training transfer: evidence from a service quality training program for German bank clerks. *International Journal of Training and Development*, *12*(2), 74-86.

Lim, D.H. & Johnson, S.D. (2002). Trainee perceptions of factors that influence learning transfer. *International Journal of Training and Development*, *6*(1), 36-48.

Machin, M.A. & Fogarty, G.J. (2003). Perceptions of training-related factors and personal variables as predictors of transfer implementation intentions. *Journal of Business and Psychology*, *18*(1), 51-71.

Martin, H.J. (2010). Improving training impact through effective follow-up: techniques and their application. *Journal of Management Development, 29*(6), 520-534.

Massenberg, A.C., Spurk, D. & Kauffeld, S. (2015). Social support at the workplace, motivation to transfer and training transfer: A multilevel indirect effects model. *International Journal of Training and Development, 19*(3), 161-178.

Nikandrau, I., Brinia, V. & Bereri, E. (2009). Trainee perceptions of training transfer: an empirical analysis. *Journal of European Industrial Training*, *33*(3), 255-270.doi:10.1108/03090590910950604

Pineda-Herrero, P., Moreno Andrés, M.V. and Durán-Bellonch, M.M. (2014). Evaluation of the impact of training in the health sector. *Journal of Educators, Teachers and Trainers*, *5*(2), 180-193,

Renta-Davis, A.I., Jiménez-González, J.M., Fandos-Garrido, M. & González-Soto, A.P. (2014). Transfer of learning: Motivation, training design and learning-conducive work effects. *European Journal of Training and Development*, *38*(8**)**, 728-744.10.1108/EJTD-03-2014-0026

Russ-Eft, D. (2002). Typology of training design and work environment factors affecting workplace learning and transfer. *Human Resource Development Review, 1*(1), 45-65.doi:10.1177/1534484302011003

Tharenou, P., Saks, A.M. & Moore, C. (2007). A review and critique of research on training and organizational-level outcomes. *Human Resource Management Review*, *17*(3), 251-273.doi:10.1016/j.hrmr.2007.07.004

Van den Bossche, P., Segers, M. & Jansen, N. (2010). Transfer of training: The role of feedback in supportive social networks. *International Journal of Training and Development*, *14*(2), 81-93.

Velada, R. & Caetano, A. (2007). Training transfer: the mediating role of perception of learning. *Journal of European Industrial Training, 31*(4), 283-296.

Velada, R., Caetano, A., Michel, J., Lyons, B.D. & Kavanagh, M.J. (2007). The effect of training design, individual characteristics and work environment on transfer of training. *International Journal of Training and Development, 11*(4), 282-294.