# The European Journal of Social and Behavioural Sciences EISBS

ISSN: 2301-2218 (online)

The European Journal of Social and Behavioural Sciences EJSBS Volume XI, Issue IV (e-ISSN: 2301-2218)

# TRANSFER OF THE LEARNING: TEACHER PROFESSIONAL DEVELOPMENT



# Lex McDonalda\*

<sup>a</sup>Victoria, University of Wellington, PO Box 600, Wellington 6140, New Zealand

#### Abstract

On-going professional development and learning (PDL) should be a significant component of a professional's development. Teachers, like all professionals, need to engage in continuous learning to ensure that relevant knowledge and skills are being utilised in their day-to-day activities to ensure professional growth and improved student outcomes. A new paradigm of PDL has emerged that supports this development, based upon a constructivist philosophy emphasising a student-centred, contextual, systems, empowering and collaborative approach that promotes teacher reflection. Numerous models supporting this paradigm have evolved, but overall, little attention given to the transfer of training (ToT) with research frequently indicating a lack of transfer. Nevertheless, PDL is only meaningful if it promotes change in teachers. Difficulties with ToT occur because it is a misunderstood, controversial, bewildering complex phenomenon and is consequently ill planned for PDL. Accordingly, PDL planning needs to incorporate a transfer plan that specifies a strategic framework and specific factors promoting on-the-job application of knowledge and skills. The Transfer of Training Audit (TOTA), based upon an evidence-based approach and developed by the author, is a means of systematically facilitating ToT promoting improved student outcomes.

Keywords: Transfer of training, professional development and learning, transfer of training audit

© 2014 Published by Future Academy. Peer-review under responsibility of Editor(s) or Guest Editor(s) of the EJSBS.

\* Corresponding author. E-mail address: lex.Mcdonald@xtra.co.nz

doi: 10.15405/ejsbs.140



This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.

#### 1. Introduction

Teaching that promotes effective student learning and success is not an accident. The quality of the teaching relates to student outcomes and professional development/learning (PDL) is the most effective means of ensuring teaching quality. However, PDL has minimal value unless there is modification of teacher behaviour. Consequently, there is an ongoing demand for teachers to improve their practice but then research indicates that transfer of training (ToT) is often inadequate or does not occur. One important reason for this lack of transfer is that the processes for the implementation into the classroom are not well known and/or overlooked by PDL planners, despite there being a vast literature and research base concerning ToT strategies. Accordingly, PDL planners need to move beyond teacher learning and incorporate strategies that promote and monitor implementation of the learning and it is recommended that a Transfer of Training Audit (TOTA) can be employed to promote this implementation.

#### 2. Problem Statement

ToT planning is an essential consideration if participant behaviour is to change following a workshop, training or PDL programme. However, teacher PDL plans often overlook the need for a strategic transfer plan to ensure this impact on-the-job.

### 3. Research Question

How can professional development planners more effectively promote ToT to the teachers' classrooms?

## 4. Purpose of the Study

The purpose of the study was to identify approaches and techniques that promote transfer of training and to create an audit (checklist) of potentially useful ideas for PDL planners to use to enhance transfer.

#### 5. Research Methods

The literature used to source this paper has arisen from a range of resources. Information about the nature of PDL and transfer was sought from databases (e.g., ProQuest) and texts, but also included unpublished material (e.g., thesis and websites) and personal experiences. Key words/phrases used in this search strategy included transfer of training, transfer of learning, effective professional development, effective professional learning and

audit. It was an evidence-based literature collation (with emphasis upon teacher PDL) identifying strategic approaches and specific techniques for promoting on-the-job impact. The criteria for selection of approaches/techniques was material that had been peer reviewed (and/or confirmed by ToT experts and colleagues) and reported as valuable via quantitative and qualitative reports for transfer. The next step was to identify those specific ToT evidence-based techniques able to be operationalised and these were then placed in a pool for the development of the Transfer of Training Audit (TOTA). Following this, whenever possible a number of similar and splinter items identified for the audit were combined into one technique then arranged into before, during and after X roles PDL categories, although recognising that these were not exclusive categories.

## 6. Findings

The purpose of this study was to identify ToT strategic approaches and specific factors that enhance the likelihood of on-the-job implementation of following teacher PDL. Detailed below is a discussion about the nature of PDL and the qualities that make it an effective endeavor. Following this, it is indicated that TOT is a complex phenomenon but the ultimate outcome of PDL often either overlooked or misunderstood by PDL planners. To overcome these problems, it is outlined that planners need more understanding about the process and then use specific evidence based factors via a strategic framework to promote transfer. The TOTA is discussed as a systematic means of accomplishing this process.

#### 6.1. Effective Professional Development

There is some lack of clarity about the definitions of professional development (PD) and professional learning (PL), although both are concerned with developing new teacher skills and knowledge to facilitate improved student outcomes. PD began to evolve from a more transmission-centred approach into a new paradigm in the later parts of the twentieth century (OECD, 1998) and this laid the foundation for the emergence of PL as a professional learning activity. PL is characterised as a constructivist activity working with/by teachers to facilitate the change that will lead to improved student outcomes (Lough, 2010). Frequently however, the terms are used inter-changeably, but rather than debating the semantic or the theory-practice perspectives of each, utilising the positive features of both has merit and a synthesis of the two approaches has been adopted. Therefore, in this review the term professional development and learning (PDL) is used, acknowledging the contributions that both PD and PL can make to improving student outcomes.

Because of the different theoretical PD and PL perspectives (e.g., behavioural, cognitive, constructivist) that have evolved over the years to improve teacher performance, it is not surprising that there are varying ideas about what constitutes PDL. Villegas-Reimers (2003) emphasised the teacher's *development* which "has a significant impact upon teachers' beliefs and practices, students' learning and on the implementation of educational reform" (p. 19). Fullan (1991) considered PDL in experiential terms and defined it as "the sum total of formal and informal learning experiences throughout one's career from pre-service teacher education to retirement" (p. 326). CEASA (n.d.) highlighted the relationship between PL and PD: "Professional learning refers to the growth of teacher expertise that leads to improved student learning. Professional learning is demonstrated through practice. It is also the opportunity for teachers to put into practice their professional development." (para 3). Timperley (2011) has encompassed the key ideas and identified PDL as the ongoing development of the teacher's knowledge and skills to facilitate student learning by a systematically monitored teacher inquiry process linked to student progress and the use of evidence to meet student needs. Overall, what these ideas indicate is that PLD has become a transformational process incorporating ideas of teacher learning to improve teacher practice to improve student outcomes (Killion, 2010).

An even more compelling issue than the debate about definition relates to the nature of what constitutes *effective* PDL. According to Darling-Hammond and Richardson (2009), it is related to a process that places a priority on the content of student learning, the learning of the teacher and an integration of curriculum, assessment, standards and professional learning opportunities. According to Muijs, Kyriakides, van der Werf, Creemers, Timperley and Earl (2014) the cycle consists of identification of student needs and teacher knowledge and skills to meet these needs, followed by a PDL programme that engages the students in the new learning experiences, which are then assessed in terms of student outcomes and future needs. In more specific terms, it is recognised that effective PDL should emphasise data, in-depth learning, constructively mediated content, long-term processes, on-the-job related learning contexts, school-reform activities, reflective practice, teacher enquiry, collaborative processes and a variety of learning approaches depending upon needs, beliefs and practices in the specific context (Bond & Evans, 2006; McDonald, 2009).

Notwithstanding these developments however, it is unclear whether there are corresponding improvements in student learning outcomes from the professional development. In relation to PDL, Timperley, Wilson, Barrar, and Fung (2007) discussed the significance of two black boxes: one situated between professional learning opportunities and the impact on teaching practice, the other between changed teaching behaviours and

student outcomes. To gain a richer understanding of effective PDL, these commentators noted the importance of additional research to facilitate improved teacher learning which would promote student outcomes. There is however, a vast ToT research base on ToT able to shed some light on the contents of the teacher learning-impact black box but it is clear however, that the need to incorporate transfer strategies to promote teacher behaviour to improve student outcomes is often over-looked (McDonald, 2011; 2012). Indeed, there is substantial research to demonstrate that participants in varied PDL programmes frequently do not transfer their knowledge and skills because a ToT plan was not developed (Cheng & Ho, 2001).

### 6.2. Transfer of Training

Transfer of training is the application of training knowledge and skills to a work setting, a concept that has arisen from the more general notion of transfer of learning referring to the process of past experiences of any kind affecting learning and performance in a new situation (Ellis, 1965). Although transfer was first debated at the turn of the 20<sup>th</sup> Century, interest in it soon waned to the occasional reference in the literature. However, even when ToT was disregarded by many, its significance remained paramount for a few. For example, Deese (1958) noted over half a century ago, "There is no more important topic in the whole psychology of learning than transfer of learning ..... practically all educational and training programs are built upon the fundamental premise that human beings have the ability to transfer what they have learned from one situation to another" (p.1). The topic was simply waiting to re-emerge as a key discussion in psychology and education.

In the past 25 years, ToT has become an issue of significance again, particularly since the seminal Baldwin and Ford (1988) paper (re)promoted its significance resulting in a flurry commentary and research sustained until the present. The following, research/commentaries, although not exhaustive, indicate the measure of this interest and the expanding knowledge base since 2000: Baldwin, Ford and Blume (2009); Blume, Ford, Baldwin, and Huang (2010); Burke and Hutchins (2007); Broad (2005); Broad and Newstrom (2001); Carnes (2010); Cheng and Hampson (2008); Cheng and Ho (2001); Cree and Macauley, (2000); Daffron and North (2011); Ford and Weissbein (1997); Greenaway, (2013); Grossman and Salas (2011); Haskell (2001); Holton, Bates and Ruona (2000); Kirwan (2009); Kraiger (2002); Leberman, McDonald and Doyle (2006); Lobato (2006); Merriam and Leahy (2005); Mestre (2005) Yamnil and Mclean (2001). In this literature, theory development, theory to practice links, practice ideas and the development of new learning paradigms have emphasised ToT links with meaningful, relevant and transportable information and established its importance in relation to how knowledge capital affects the local and global economies (Leberman, McDonald, & Doyle, 2006). Accordingly, with this increasing awareness, there is a wealth of ideas about how to promote ToT.

Nevertheless, ToT has been a controversial, complex and a bewildering notion, underpinned by different theoretical perspectives (Barnett & Ceci, 2002; De Cort, 1995). The formal disciplines approach (e.g., Binet, 1899), emphasised the general transfer of general skills to an unrelated area (e.g., learning of Latin could help learning in other discipline areas). Although now widely repudiated, there is some evidence that specific dominant faculties of the brain and liking of a subject can influence later learning (Muller, 1975; Rychlak, Nguyen, & Schneider, 1974). The gestalt perspective (e.g., Katona, 1940) promoted the idea of specific transfer of a modifiable general skill to enhance transfer (e.g., use of problem-solving skill in education and engineering). In opposition to this, the identical elements approach (e.g., Thorndike & Woodworth, 1901) supported the idea of a specific skill transfer, emphasising the importance of similarity in both settings (e.g. teaching of cooperative learning in a simulated classroom setting to be transferred similarly to the teacher's classroom). The cognitive explanation, also having it roots in the early 20th Century - although there have been many variants of it, today it is essentially characterised metacognitive control of specific and general skills for transfer (e.g., Brown, 1989). It has continued to develop and contribute significantly to current understanding about ToT.

All of these theoretical viewpoints have provided some impetus for promoting ToT understanding, practice and a platform for future developments, and as McDonald (in press) has noted, although different perspectives create complexities, the ..... "discussion and debate about the theories and operationalisation of transfer have continued, with one benefit being, understanding, conceptualisation and the development of applied training programmes .... advanced." Nevertheless, implementation cannot be assumed, for as Saks and Belcourt (2006) report, on average 40% of employees do not transfer immediately despite good intentions, and after 1 year 66% are not using the ideas. Indeed, it is generally accepted that implementation rates remain low, even though there have been significant theoretical and practice advances. Therefore, despite the importance attached to transfer to achieve outcomes, the significant research and practice base and the vast funding channelled into PDL, transfer does not always occur and principles and practices of ToT often over-looked or unknown.

There is a range of reasons explaining the lack application of ToT. Firstly, a number of commentators question the very nature of transferability - although some believe transfer frequently occurs spontaneously (e.g., Bereiter, 1995), others (e.g., Detterman, 1993)

contend it is very difficult to achieve. On the other hand, Broad and Newstrom (2001) and Haskell (2001) believe it can readily be achieved if the important actors undertake careful planning. In particular, the role of the PDL facilitator is recognised as being a catalyst for initiating and sustaining the ToT process – but this does not diminish the importance of the other key actors in ToT because it is a complex interplay of roles/settings with an encompassing focus upon the facilitator, learner, supervisor and work context (Berry, 2012). Therefore, another potential reason for failure can be the role performance of the PDL facilitator.

The PDL facilitator role in ToT is crucial, not only concerned with the content and methodology of the course/workshop but also the coordination of the overall PDL programme, including ToT. However, as Berry (2012) has noted, many facilitators still have not grasped the central importance of ToT which thwarts its occurrence. Hutchins, Burke and Berthelson (2010) in support of this, noted many facilitators learn about ToT informally and as Sanders, van Riemsdijk and Groen (2008) have signified, to gain a workable ToT knowledge and skill base, research-practice findings need to be understood and employed. Many facilitators simply learn by trial and error in an ad hoc manner emphasising training/learning techniques, overlooking the importance of using techniques that act as vehicles for transfer (Cheng & Ho, 2001; Zenger, Folkman and Sherwin (2005). A further complication, despite the paradigm shift to constructivism, transmission teaching approaches are often still evident, leaving the responsibility for application of ideas to the participants (McDonald, 2007).

It is unreasonable however to expect that all facilitators have a detailed knowledge of transfer. For example, a school professional development leader is unlikely to have this knowledge and skills and therefore, a guided flexible approach needs to be available for PDL facilitators to plan for implementation in the classroom. One means of accomplishing this is via a transfer plan to evaluate the instructional design, but it is also expected that a facilitator engage in additional learning about ToT for background understanding. This paper utilises ideas from the literature to assist in developing this transfer plan by using a TOT audit (TOTA).

In developing this audit, accessing a wide range of literature expedited the identification of key themes and these were then utilised to ensure a coverage of key ToT factors (within the before, during and after x roles strategic categorisations). The following themes (provided here with a descriptor) were identified:

• Definition: The definition of ToT implicates the learner, content and context (McDonald, 2002) and it is agreed that it involves a generalisation to a new context

that has at least some similarities or, at least, a preparation for future transfer to unknown context (Bransford & Schwartz, 1999);

- Transfer process: Transfer is a process working toward an outcome (Foxon, 1993, 1994).
- Cultural influences: Transfer is influenced by the national and local culture of the participants (Lim, 2007; McDonald, 2002; Sarkar-Barney, 2004)
- Evidence based practice: Using qualitative (e.g., McDonald, 2002) and quantitative studies (e.g., Grossman & Salas, 2011; Holton, Bates & Ruona, 2000) as well as clinical practice ideas (e.g., Cree & Macaulay, 2000) can contribute to the knowledge base to develop successful transfer;
- Assessment practices: These highlight the significance to be given to transfer and provide a vehicle for enhancing transfer effectiveness (eg., Cheng & Ho, 2001; Cree & Macaulay, 2000);
- Transfer of training for professionals: Research and practice models for PDL have been relatively unexplored. Some of the professional practice case studies of Daffron and North (2011) provide data as well as some of the key approaches of transfer in teacher PD (e.g., Joyce & Showers, 1996, 2002; McDonald, 2002; 2012). Some health professional findings (e.g. Yelon, Sheppard, Sleight, & Ford, 2004), which are likely to have relevance to other professionals, are also useful to consider;
- Different types of transfer: These require different approaches in different contexts for example, near transfer refers to similar contexts while far transfer explains transfer to a dis-similar situation (Schunk, 2004);
- ToT strategic approaches: A strategic planned transfer of training approach, which accesses key principles and practices about what is already known and successful is promotive of transfer. The Transfer roles X time periods schema (Broad & Newstrom, 2001), although developed initially for management, is a basic foundational model that can be supplemented by other strategic designs, such as those from the educational psychology orientation (e.g., Daffron & North, 2011; Halpern & Hakel, 2002; Haskell, 2001).
- The new learning paradigms: ToT is interwoven with the nature of learning (including motivational aspects) and this is an important component of understanding how to effectively ensure PDL is implemented to achieve improved student outcomes (McDonald, 2012)

All of these ideas laid the foundation for the identification and development of the TOTA.

# 6.3. Significant ToT Factors

The TOTA has drawn upon a range of sources including two comprehensive research studies that have identified key TOT factors. Holton, Bates and Ruona (2000) developed the Learning Systems Transfer Inventory (LTSI) from the results of a factor analysis and detected 16 catalyst and barrier factors. It is a highly regarded research-based instrument employing a systematic approach with the latest version including 89 Likert items related to the 16 factors. In the Grossman and Salas (2011) summary of ToT research, 11 critical catalyst findings were detailed, many similar to the LTSI categories. Table 1 is a synthesis of these two sets of factors, and these (along with others identified via the evidence base search) have been included in the TOTA.

Table 1. Synthesis of Catalysts and Barriers for TOT (Holton et al., 2000; Grossman et al., 2011)

Factor	Definition
Perceived content validity and utility	Content reflects job requirements and is perceived to be useful
Transfer design	Learning environment is realistic/simulated and activities relate to job, modelling occurs, practice follows, and it is understood how to transfer them to the job
Error management	In the PD/PL errors are anticipated and learners given approaches to deal with them
Opportunity to use learning	The individual has the resources and time to practice the new ideas (etc) on the job
Personal capacity to transfer	Individual has time, energy and cognitive ability to make the changes
Motivation to learn and transfer	Individual is motivated to learn and to transfer the ideas (etc)
Effort is worthwhile	Belief that the effort will lead to improved performance
Expected performance outcomes valued	Performance outcomes would be valued by the individual and the organisation
Learner readiness	Individual contributed ideas (etc) to the plan, aware of expectations and aware how the PD/PL related to work performance
Self-efficacy	Individual has personal belief in capacity to learn and transfer
Positive personal outcomes	Individual receives rewards for transferring the learning (e.g., personal satisfaction, salary increase)
Negative personal outcomes	The use of the new learning leads to negative outcomes (e.g., reprimands, peer resentment)
Supervisor feedback/ performance coaching	Individual receives assistance to improve and feedback from work environment
Follow-up	After the formal PD/PL additional PDL should occur (e.g., relapse prevention, feedback, development of job aides)

The TOTA (refer to table 2 below), developed for PDL contexts to improve transfer of training, has a number of advantageous features: it identifies a wide range of ToT factors, creates a baseline for PDL transfer and can identify gaps in ToT planning. As indicated, the 14 factors outlined in Table 1 are included (but sometimes expanded and integrated with other ideas) and are shaded grey in table 2 for easy recognition. Not all of the TOTA factors however would be included in every PDL programme as each context is unique and therefore, the user needs to be selective and even adding some additional contextual items if necessary. However, the variables identified by Gossman and Salas (2011) and Holton, Bates and Ruona (2000) (i.e., those shaded grey) need to be given some priority as those factors were identified by rigorous research endeavours, although this should not diminish the importance of the remaining factors which can provide a contextual significance for ToT. Indeed, TOTA is a more encompassing overview of ToT as it was developed using ideas from a wider evidence based approach (Hoffman, Bennett, & Del Mar, 2010) including factors from research, clinical experience, practice and ideas related to the learner's situation. However, it has not been subject to any statistical validation with selection of factors based upon reports that had been peer reviewed with each factor detailed in at least two different research reports – in a few cases, one research report and personal communication. Ongoing research is of course likely to identify other pertinent contextual factors. Furthermore, since the independence of the item factors was unassessed, it is likely that there are some overlaps in meaning, as well as some items being interactive. In the construction of the TOTA, some items could have been documented repeatedly (e.g., the 4th item, 'culture of the workplace', item could also be incorporated into the 'different cultures' section) but, for sake of brevity, multiple entries have been excluded. This is the second version of TOTA, the first developed in 2013 (McDonald, in press); this version has some additional factors including a section on cultural factors. Additional information concerning details of about the factors can be obtained by referring to the literature in the reference section.

Table 2. Transfer of Training Audit

TOTAL ITEM	Yes	No X	Comment
Has a needs assessment (organisation and individual) been undertaken?			
Has a return on investment plan (identification of the benefits in relation to the actual costs of the training) been developed?			
Will collaborative planning by key stakeholders (facilitator, participant, and manager) be a feature?			
Will the culture of the workplace (e.g., values, goals, setting, attitudes communication styles) be considered in planning?			
Does the planning centre upon roles and responsibilities of the learner, facilitator and			

	1		I
work roles linked to before, during and after training phases?			
Will the planning promote participant and manager positive attitudes to learning and indicate that learning can be achieved?			
Does the planning promote the participant, colleagues, managers and Ministry			
knowledge/support for the programme and develop positive attitudes about expected			
outcomes?			
Does the planning incorporate valid content that is perceived by participant as having job utility?			
Does the planner/instructor know the content field and the organisation?			
Was selection of the facilitator based upon reputation/status?			
Does facilitator have the personal qualities to work with participants?			
Does the facilitator have skills/knowledge to build relationships, promote the learning			
and be a good listener?			
Do all instructors understand each other's plans and content prior to commencement of course?			
Will there be pre-programme activities (e.g., readings) for the participant?			
Will the participant feel confident to learn and change performance (self-efficacy)?			
Has the participant volunteered for the course?			
Is it convenient time for the participant (hours during the day/time of year)			
Will the training meet the meta needs of the participant in terms of training approach? Which objective(s) will it centre on?			
Re-energise the participant?			
Provide practical ideas useful to the participant?			
Present ideas for later use?			
A forum to discuss ideas?			
Observation and modelling opportunities?			
A combination of some of these?			
Will the participant be motivated to learn and transfer prior to training by:			
Information given out about content value for work setting?			
<ul> <li>The opportunity to provide input prior to planning completion?</li> </ul>			
		No	Comment
	Yes	X	
	Yes 🗸		
TOTAL ITEM	Yes		
TOTAL ITEM  • Being able to relate the programme to career goals?	Yes 🗸		
<ul> <li>Being able to relate the programme to career goals?</li> <li>Knowing what to expect (content, methods, outcomes)?</li> <li>Having a belief that effort will be worthwhile and lead to improved</li> </ul>	Yes 🗸		
<ul> <li>Being able to relate the programme to career goals?</li> <li>Knowing what to expect (content, methods, outcomes)?</li> <li>Having a belief that effort will be worthwhile and lead to improved performance?</li> </ul>	Yes		
TOTAL ITEM  Being able to relate the programme to career goals?  Knowing what to expect (content, methods, outcomes)?  Having a belief that effort will be worthwhile and lead to improved performance?  Knowing that key people/colleagues will support  Completing some introductory tasks/readings?  Can expected resistances/sanctions by others to course implementation and expected	Yes		
TOTAL ITEM  Being able to relate the programme to career goals?  Knowing what to expect (content, methods, outcomes)?  Having a belief that effort will be worthwhile and lead to improved performance?  Knowing that key people/colleagues will support  Completing some introductory tasks/readings?  Can expected resistances/sanctions by others to course implementation and expected outcomes be accommodated/altered?	Yes		
TOTAL ITEM  Being able to relate the programme to career goals?  Knowing what to expect (content, methods, outcomes)?  Having a belief that effort will be worthwhile and lead to improved performance?  Knowing that key people/colleagues will support  Completing some introductory tasks/readings?  Can expected resistances/sanctions by others to course implementation and expected outcomes be accommodated/altered?  Will the training site be inviting, realistic, suitable for the learning activities, and	Yes		
TOTAL ITEM  Being able to relate the programme to career goals?  Knowing what to expect (content, methods, outcomes)?  Having a belief that effort will be worthwhile and lead to improved performance?  Knowing that key people/colleagues will support  Completing some introductory tasks/readings?  Can expected resistances/sanctions by others to course implementation and expected outcomes be accommodated/altered?  Will the training site be inviting, realistic, suitable for the learning activities, and capable of being transformed into an on the job simulation?	Yes		
TOTAL ITEM  Being able to relate the programme to career goals?  Knowing what to expect (content, methods, outcomes)?  Having a belief that effort will be worthwhile and lead to improved performance?  Knowing that key people/colleagues will support  Completing some introductory tasks/readings?  Can expected resistances/sanctions by others to course implementation and expected outcomes be accommodated/altered?  Will the training site be inviting, realistic, suitable for the learning activities, and capable of being transformed into an on the job simulation?  Will the needs of the participant from different cultures be considered?	Yes		
TOTAL ITEM  Being able to relate the programme to career goals?  Knowing what to expect (content, methods, outcomes)?  Having a belief that effort will be worthwhile and lead to improved performance?  Knowing that key people/colleagues will support	Yes		

			i	
•	Is the relative importance of colleagues Vs manager support determined?			
•	Are the different cultural values considered (Refer to Hofstede's ideas for example)?			
•	Are interpersonal and non-verbal behaviours considered?			
•	Will the differences in technical resources be considered?			
•	Is it culture resistant to change – how will this be managed?			
•	Will the learning preferences be considered?			
•	Will the PDL knowledge, skills and attitudes be culturally acceptable?			
•	Will there be the correct balance between individual motivation to achieve and group harmony?			
•	Are the basic values, practices (etc) in the work setting different?			
•	Will a whole or analytical thinking approach be used?			
•	Will family/parent/community support be considered?			
•	Will appropriate motivation strategies be used (i.e., achievement, independence Vs contextual factors)?			
•	Does the facilitator have knowledge about the culture and appropriate skills to teach?			
•	Should the community benefits be outlined?			
•	Has facilitator role status for that culture been ascertained?			
Will t	he training emphasise the following approaches:			
•	Motivation for participant to learn content (knowledge and skills) that is valid and has job utility?			
•	Satisfaction of the learner?			
•	Satisfaction of the learner?  Facilitative, fun programme that promotes leadership and followship?			
•				
•	Facilitative, fun programme that promotes leadership and followship?			
•	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?	Yes	No X	Comment
•	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities	Yes 🗸		Comment
•	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM	Yes		Comment
•	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities Time for participant to plan tasks (etc)  Practical, realistic programme linked to the job?	Yes		Comment
•	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities Time for participant to plan tasks (etc)  Practical, realistic programme linked to the job?  Capability to provide for training of identical elements in learning and on-job	Yes		Comment
TOTA	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities Time for participant to plan tasks (etc)  Practical, realistic programme linked to the job?  Capability to provide for training of identical elements in learning and on-job sites as well as teaching of general principles for targeting different contexts?	Yes		Comment
TOTA	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities  Time for participant to plan tasks (etc)  Practical, realistic programme linked to the job?  Capability to provide for training of identical elements in learning and on-job sites as well as teaching of general principles for targeting different contexts?  Ing retrieval of ideas and development of cues?	Yes 🗸		Comment
TOTA	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities Time for participant to plan tasks (etc)  Practical, realistic programme linked to the job?  Capability to provide for training of identical elements in learning and on-job sites as well as teaching of general principles for targeting different contexts?	Yes		Comment
TOTA	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities  Time for participant to plan tasks (etc)  Practical, realistic programme linked to the job?  Capability to provide for training of identical elements in learning and on-job sites as well as teaching of general principles for targeting different contexts?  In retrieval of ideas and development of cues?  Teaching via error-based learning, how to correct the errors and identify	Yes 🗸		Comment
TOTA	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities Time for participant to plan tasks (etc)  Practical, realistic programme linked to the job?  Capability to provide for training of identical elements in learning and on-job sites as well as teaching of general principles for targeting different contexts?  In gretrieval of ideas and development of cues?  Teaching via error-based learning, how to correct the errors and identify potential problematic issues to be overcome?	Yes		Comment
TOTA	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities Time for participant to plan tasks (etc)  Practical, realistic programme linked to the job?  Capability to provide for training of identical elements in learning and on-job sites as well as teaching of general principles for targeting different contexts?  In retrieval of ideas and development of cues?  Teaching via error-based learning, how to correct the errors and identify potential problematic issues to be overcome?  Some choice of training techniques by participant?  Strategies for dealing with differing cognitive abilities (e.g., grouping, buddies,	Yes		Comment
TOTA	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities Time for participant to plan tasks (etc)  Practical, realistic programme linked to the job?  Capability to provide for training of identical elements in learning and on-job sites as well as teaching of general principles for targeting different contexts?  In retrieval of ideas and development of cues?  Teaching via error-based learning, how to correct the errors and identify potential problematic issues to be overcome?  Some choice of training techniques by participant?  Strategies for dealing with differing cognitive abilities (e.g., grouping, buddies, alternative readings)?  The use of different age group strengths (e.g., promotion of innovative ideas Vs	Yes		Comment
TOTA	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities Time for participant to plan tasks (etc)  Practical, realistic programme linked to the job?  Capability to provide for training of identical elements in learning and on-job sites as well as teaching of general principles for targeting different contexts?  In gretrieval of ideas and development of cues?  Teaching via error-based learning, how to correct the errors and identify potential problematic issues to be overcome?  Some choice of training techniques by participant?  Strategies for dealing with differing cognitive abilities (e.g., grouping, buddies, alternative readings)?  The use of different age group strengths (e.g., promotion of innovative ideas Vs use of experience)?	Yes		Comment
TOTA	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities Time for participant to plan tasks (etc)  Practical, realistic programme linked to the job?  Capability to provide for training of identical elements in learning and on-job sites as well as teaching of general principles for targeting different contexts?  In retrieval of ideas and development of cues?  Teaching via error-based learning, how to correct the errors and identify potential problematic issues to be overcome?  Some choice of training techniques by participant?  Strategies for dealing with differing cognitive abilities (e.g., grouping, buddies, alternative readings)?  The use of different age group strengths (e.g., promotion of innovative ideas Vs use of experience)?  In-depth and background learning being made available?	Yes		Comment
TOTA  actisii	Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities Time for participant to plan tasks (etc)  Practical, realistic programme linked to the job?  Capability to provide for training of identical elements in learning and on-job sites as well as teaching of general principles for targeting different contexts?  In retrieval of ideas and development of cues?  Teaching via error-based learning, how to correct the errors and identify potential problematic issues to be overcome?  Some choice of training techniques by participant?  Strategies for dealing with differing cognitive abilities (e.g., grouping, buddies, alternative readings)?  The use of different age group strengths (e.g., promotion of innovative ideas Vs use of experience)?  In-depth and background learning being made available?  A balance of individual, group and cooperative work – but mostly cooperative?  Setting of individual goals within organisational goal setting framework?	Yes		Comment
TOTA  actisii	Facilitative, fun programme that promotes leadership and followship?  Use of advance organisers?  Promotion of prosocial outgoing behaviours?  AL ITEM  Participation by facilitator in the activities Time for participant to plan tasks (etc)  Practical, realistic programme linked to the job?  Capability to provide for training of identical elements in learning and on-job sites as well as teaching of general principles for targeting different contexts?  In retrieval of ideas and development of cues?  Teaching via error-based learning, how to correct the errors and identify potential problematic issues to be overcome?  Some choice of training techniques by participant?  Strategies for dealing with differing cognitive abilities (e.g., grouping, buddies, alternative readings)?  The use of different age group strengths (e.g., promotion of innovative ideas Vs use of experience)?  In-depth and background learning being made available?  A balance of individual, group and cooperative work – but mostly cooperative?	Yes		Comment

https://doi.org/10.15405/ejsbs.140 eISSN: 2301-2218 / Corresponding Author: Lex McDonald Selection & Peer-review under responsibility of the Editors

experiences (etc) are part of the teaching, meaning and attitudes are related to			
the life of the individual and competence of participant is displayed in and out of the course?			
• The development of the participant's self-esteem, image and awareness?			
• The development of personal mastery objectives (rather than just looking good to others) and seeking of feedback to improve?			
Will the following specific training ideas be used:			
A teaching cycle of theory, demonstration, practice and observation?			
Many examples and showing how to apply them?			
Role modelling of positive and negative examples?			
Analogies?			
Practice ideas over a distributed time?			
An emphasis on thinking how to apply?			
Promotion of adaptive expertise to meet the different contexts			
Questioning, problem solving and scenario building			
Over-learning?			
Descriptive and developmental feedback?			
Manageable chunks of learning?			
Computer based learning			
Computer based rearring	Yes	No	Comment
TOTAL ITEM	<b>√</b>	X	Comment
Cooperative learning, group tutorials, peer tutoring			
Dynamic visuals?			
• Hand-outs?			
Frequent content reviews?			
Practising retrieval of ideas and development of cues?			
Will the participant will have time, energy and ability to think about making the			
changes necessary to implement ideas?			
Will some form of certification be available?			
Will course notes and school resources be available to implement ideas?			
Will the participant have the opportunity to use ideas and integrate into practice on return to work setting?			
Will the participant be ready to use ideas on return to work?			
Will an action plan for implementation of ideas be developed?			
Will the participant have a belief that management of change is possible and management of environmental obstacles is possible?			
Feedback on the new ideas will be used to modify the approach			
Will participant be able to notice improvements to reinforce behaviour?			
Will the participant demonstrate flexibility and actually change behaviour and attitudes			
Will there be management /supervisor support and reinforcement of the new learning on the job?			
Will there be opportunities for informal sharing of new ideas in the work setting			
because it is considered valuable by them?			
Will on-going coaching from others be available			
Can support by participant be given to peers to use the new ideas?		L	

Selection & Peer-review under responsibility of the Editors

Will the school be able to incorporate the ideas into polices (etc)		
Will the colleagues positively acknowledges effort, reinforce and support on return to		
work?		
Will participant get constructive feedback from other employees?		
Will the participant be rewarded (e.g., salary, promotion, public recognition) for		
implementation of ideas?		
Does the participant have expectations that valued outcomes will follow		
implementation of ideas and that the ideas are valued by the organisation?		
Will the participant be able to avoid negative personal outcomes?		
Will the facilitator follow-through to monitor/help in the after phase (including		
consulting with participant and key others)?		
Will parent/community feedback be given to the participant?		
Is post-training learning/maintenance of new ideas planned and/or relapse prevention		
programmes to be implemented?		
Are there measurements of the introduced ideas and impacts?		
Will there be resistance by work groups and can it be overcome?		
Can there be avoidance of manager sanctions?		

#### 7. Conclusions

Vast amounts of funding are devoted to upgrading and maintaining teacher quality to facilitate improved student outcomes and yet, PDL has no meaning unless participants use their learning in the classroom. Therefore, PDL planners/facilitators need more than a keen knowledge of curriculum developments, classroom processes, teacher motivation and teacher learning strategies for, although prerequisite qualities, they are insufficient to promote sustainability and implementation of the PDL on the job. Whether the PDL be in-school based or off-site, there is an urgent need for planners to become more knowledgeable and skilled in the transfer of training instructional technology and promote teacher application of new learning. The TOTA is an introductory flexible framework for identifying a range of factors that can be employed to promote ToT so that teacher learning, intentions and skills are enacted in the classroom.

We fail as training professionals if our participants do not transfer what they have learned in our programs back to their jobs. Too often we focus too much of our time, talent, and treasure to creating the best learning events – and usually we succeed. But .....what is really important is that our participants increase their job performance from we have taught them (Basarab, 2013, para 1).

# Acknowledgements

The author(s) declare that there is no conflict of interest.

## References

- Baldwin, T., Ford, K., & Blume, B. (2009). An updated review and new agenda for future research. In G. Hodgkinson & K. Ford, *International Review of Industrial and Organisational Psychology* (pp. 41-70). Chichester: Wiley.
- Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, 41(1), 63-105. https://doi.org/10.1111/j.1744-6570.1988.tb00632.x
- Barnett, S. M., & Ceci, S. J. (2002). When and where do we apply what we learn? A taxonomy for far transfer. *Psychological Bulletin*, 128, 612–637. https://doi.org/10.1037/0033-2909.128.4.612
- Basarab, D. (2013). *Remember the importance of training transfer*. Available at http://www.davebasarab.com/ blog/training-transfer/remember-the-importance-of-training-transfer/
- Bereiter, C. (1995). A dispositional view of transfer. In A. McKeough, J. Lupart, & A. Marini (Eds.), *Teaching for transfer: Fostering generalization in learning* (pp. 21-34). New Jersey: Lawrence Erlbaum.
- Berry, J. (2012). *Have trainers really grasped the importance of transfer of training?*Available at http://www.timelesstime.co.uk/white-papers/importance-of-training-transfer/
- Binet, A. (1899). The psychology of reasoning. Based on experimental researches in hypnotism. Chicago: Open Court.
- Blume, B. D., Ford, J. K., Baldwin, T. T., & Huang, J. (2010). Transfer of Training: A Metaanalytic Review. *Journal of Management 36*(4), 1065-105. https://doi.org/10.1177/0149206309352880
- Bransford, J., & Schwartz, D. (1999). Rethinking transfer: A simple proposal with multiple implications. *Review of Research in Education*, 24(1), 61-100. https://doi.org/10.3102/0091732X024001061
- Bond, K., & Evans, M. (2006). A review of literature on professional development content and delivery modes for experienced teachers. Report for the Ontario Ministry of Education. Available at <a href="http://www.oise.utoronto.ca/ite/UserFiles/File/CharacterizingITE.pdf">http://www.oise.utoronto.ca/ite/UserFiles/File/CharacterizingITE.pdf</a>
- Broad, M., & Newstrom, J. (2001). *Transfer of training: Action-packed strategies to ensure high payoff from training investment.* Cambridge, MA: Perseus.
- Brown, A. (1989). Analogical learning and transfer: What develops? In S. Vosniadou, & A. Ortony (Eds.), *Similarity and analogical reasoning* (pp. 369–412). Cambridge, Eng.: Cambridge University Press. https://doi.org/10.1017/CBO9780511529863.019
- Burke, L., & Hutchins, H. (2007). Training transfer: An integrative literature review. *Human Resource Development Review*, 6(3), 263-297. https://doi.org/10.1177/1534484307303035
- Carnes, B. (2010). Making learning stick: 20 Easy and Effective Techniques for Training Transfer. Alexandria, VA: ASTD Press.
- CEASA (The Council of Education Associations of South Australia) (n.d.). *Professional learning*. Available at http://www.ceasa.asn.au/teacher-essentials/professional-learning/

- Cheng E., & Ho, D. (2001). A review of transfer of training studies in the past decade. *Personnel Review, 30*(1), 102-118. https://doi.org/10.1108/00483480110380163
- Cheng, E., & Hampson, I. (2008). Transfer of training: A review and new insights. *International Journal of Management Reviews*, 10(4), 327-341. d https://doi.org/10.1111/j.1468-2370.2007.00230.x
- Cree, V., & Macaulay, C. (2000). Transfer of learning in professional and vocational education. London: Routledge.
- Daffron, S. R., & North, M. W. (2011). Successful Transfer of Learning. Malabar, FL: Krieger
- Darling-Hammond, L., & Richardson, N. (2009). Teacher learning: What matters? *Educational Leadership*, 66(5), 46-53.
- De Corte, E. (1995). Learning theory and instructional science. In P. Reiman, & H. Spada, (Eds.), *Learning in humans and machines: Towards an interdisciplinary learning science* (pp. 97-108). London: Pergamon.
- Desse, J. (1958). Transfer of training: The psychology of learning. NY: McGraw-Hill.
- Detterman, D. (1993). The case for the prosecution: Transfer as an epiphenomenon. In D. Detterberg & R. Sternberg (Eds.), *Transfer on trial* (pp. 1-24). Norwood, NJ: Ablex Publishing.
- Ford, J. K., & Weissbein, D. A. (1997). Transfer of training: An updated review and analysis. *Performance Improvement Quarterly*, 10, 22-41. https://doi.org/10.1111/j.1937-8327.1997.tb00047.x
- Foxon, M. J. (1993). A process approach to the transfer of training. Part 1: The impact of motivation and supervisor support on transfer maintenance. *Australian Journal of Educational Technology*, 9(2), 130-143. https://doi.org/10.14742/ajet.2104
- Foxon, M. J. (1994). A process approach to transfer of training. Part 2: using action planning to facilitate the transfer of training. *Australian Journal of Educational Technology*, 10(1), 1-18. https://doi.org/10.14742/ajet.2080
- Fullan, M., & Steigelbauer, S. (1991). *The new meaning of educational change* New York: Teachers College Press.
- Greenaway, R. (2013). *The best websites about the transfer of learning*. Available at http://reviewing.co.uk/transfer/
- Grossman, R., & Salas, E. (2011). Transfer of training: What really matters? *International Journal of Training and Development*, 15(2),103–120. https://doi.org/10.1111/j.1468-2419.2011.00373.x
- Halpern, D., & Hakel, M. (2002). Applying the science of learning to the university and beyond. New Directions for Teaching and Learning. San Francisco: Jossey-Bass.
- Haskell, R. (2001). *Transfer of learning. Cognition, instruction and reasoning.* San Diego, CA: Academic Press.
- Hoffman, T., Bennett, S., & Del Mar, C. (2010). Evidence-based practice across the health professions. London: Elsevier.
- Holton, E. F., Bates, R., & Ruona, W. (2000). Development of a generalized learning transfer system inventory. *Human Resource Development Quarterly*, 11(4), 333-360. https://doi.org/10.1002/1532-1096(200024)11:4<333::AID-HRDQ2>3.0.CO;2-P
- Hutchins, H. M, Burke, L. A., & Berthelsen, A. M. (2010). A missing link in the transfer problem? Examining how trainers learn about training transfer. *Human Resource Management*, 49(4), 599-618. https://doi.org/10.1002/hrm.20371

- Joyce, B., & Showers, B. (2002). *Student achievement through staff development*. Alexandria, VA; Association for Supervision and Curriculum Development.
- Saks, A. & Belcourt, M. (2006). An investigation of training activities and transfer of training in organizations. *Human Resource Management*, 45(4), 629–648. https://doi.org/10.1002/hrm.20135
- Showers, B. & Joyce, B. (1996). The evolution of peer coaching, *Educational Leadership*, 53(6), 12–16.
- Katona, G. (1940). Organizing and memorizing: Studies in the psychology of learning and teaching. New York: Columbia University Press.
- Kirwan, C. (2009). *Improving learning transfer*. Farnham, UK: Gower
- Kraiger, K. (Ed.) (2002. Creating, implementing, and managing effective training and development: State-of-the-art lessons for practice. San Francisco: Jossey-Bass.
- Leberman, S., McDonald, L., & Doyle, S. (2006). *The transfer of learning: Participants'* perspectives of adult education and training. Aldershot, UK: Gower.
- Lim, D. H. (1999). Organizational and cultural factors affecting international transfer of training. *Performance Improvement*, 38(3), 30-36. https://doi.org/10.1002/pfi.4140380309
- Lobato, J. (2006). Alternative perspectives on the transfer of learning: History, issues, and challenges for future research. *The Journal of the Learning Sciences*, *15*(4), 431-449. https://doi.org/10.1207/s15327809jls1504 1
- Lough, J. (2010). What expert teachers do: Enhancing professional knowledge for classroom practice. Crows Nest, NSW: Allan & Unwin.
- McDonald, B. (2001) *Transfer of training in a cultural context: A Cook Islands study*. Unpublished doctoral thesis, Victoria University of Wellington, New Zealand.
- McDonald, L. (2007). In from the cold: Developing training to impact. In K. Fanti (Ed.), *Psychological Science: Research, Theory and Future Directions* (pp. 283 296). Athens, Greece: ATINER.
- McDonald, L. (2009). Teacher change: A dynamic interactive approach. *International Journal of Learning*, 16(10), 623-636. https://doi.org/10.18848/1447-9494/CGP/v16i10/46682
- McDonald, L. (2012). Learning, motivation and transfer: Successful teacher professional development. *Teacher Education and Practice*, 25(2), 271-286.
- Merriam, S. B., & Leahy, B. (2005). Learning transfer: A review of the research in adult education and training. PAACE *Journal of Lifelong Learning 14*, 1-24. Retrieved from http://www.coe.iup.edu/
- Mestre, J. (2005). *Transfer of learning from a modern multidisciplinary perspective*. Charlotte, NC: Information Age Publishing.
- Muijs, D., Kyriakides, L., van der Werf, G., Creemers, B., Timperley, H., & Earl, L. (2014). State of the art–teacher effectiveness and professional learning. *School Effectiveness and School Improvement*, 25(2), 231-256. https://doi.org/10.1080/09243453.2014.885451
- Mueller, R. J. (1975). *Principles of classroom learning and perception*. London: Praeger Publishers Inc.
- OECD (Organisation for Economic Co-operation and Development). (1998). *Staying ahead. Inservice training and teacher professional development*. Paris: Author.

- Rychlak, J. F., Nguyen, D. T., & Schneider, W. E. (1974). Formal discipline revisited: Affective assessment and nonspecific transfer. *Journal of Educational Psychology*, 66(1), 139-151. https://doi.org/10.1037/h0035774
- Saks, A., & Belcourt, M. (2006). An investigation of training activities and transfer of training in organisations. *Human Resource Management*, 45(4), 629-648. https://doi.org/10.1002/hrm.20135
- Sanders K., van Riemsdijk M., & Groen, B. (2008). The gap between research and practice: a replication study on the HR professional's beliefs about effective human resource practices. *International Journal of Human Resource Management*, 19(10), 1976-1988. https://doi.org/10.1080/09585190802324304
- Sarkar-Barney, S. (2004). The role of national culture in enhancing training effectiveness: A framework. In M. Kaplan (Ed.), *Cultural ergonomics* (pp.183-214). Amsterdam: Elsevier. https://doi.org/10.1016/S1479-3601(03)04006-2
- Schunk, D. (2004). *Learning theories: An educational perspective*. Upper Saddle River, NJ, USA: Pearson.
- Thorndike, E. L., & Woodworth, R. S. (1901). The influence of improvement in one mental function upon the efficiency of other functions. *Psychological Review*, 8, 247-261.
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher Professional Learning and Development: Best Evidence Synthesis Iteration*. Wellington: Ministry of Education.
- Timperley, H. (2011). *Realizing the power of professional learning*. Berkshire, UK: Open University Press.
- Yamnill, S., & McLean, G. N. (2001). Theories supporting transfer of training. *Human Resource Development Quarterly*, 12(2), 195-208. https://doi.org/10.1002/hrdq.7
- Yelon, S. L., Sheppard, L., Sleight, D. A., & Ford, J. K. (2004). Intention to transfer: How do autonomous professionals become motivated to use new ideas? *Performance Improvement Quarterly*, 17(2), 82-103. https://doi.org/10.1111/j.1937-8327.2004.tb00309.x
- Zenger, J., Folkman J., & Sherwin R, (2005). The promise of phase 3. *Training and Development*, 59(1), 30-34. https://doi.org/10.3102/0013189X034001030