

A Brief History of Research into Learning Transfer*

*There are currently over 44,000 articles on learning transfer and this paper is based on a selection of them.

What is training transfer?

It is where a learner demonstrates that they can deploy knowledge and skills effectively in the workplace in a variety of different environments and contexts on a sustained and effective basis.

Why might transfer be important to our clients?

Training spend in the UK was estimated to be £38.6 billion in 2007 (an average of £1,750 for every person employed)

Winterbotham, M. et al 2008

Studies indicate that ...	<i>Business/organisational implication with regard to £38.6bn investment</i>
Only 50% of training investments result in organisational or individual improvement. (US study – Saks, A. M. 2002)	<i>£19.3 billion of UK investment in 2007 would have had no impact on organisational or individual performance</i>
Only 10% of training translates into job performance (Cheng and Ho cited in Gilpin-Jackson and Bushe, 2007a)	<i>£34.7 billion UK investment in 2007 would have had no impact on performance</i>

86% of organisations claim to use Level 1 evaluations despite their inability to predict transfer of learning or workplace performance. (Ruona et al., 2002)

Research points to mounting anxiety amongst practitioners that low rates of transfer were damaging the perceived effectiveness of training, leading to **loss of reputation** and influence for the profession, diminishing the **strategic** significance of the training function and rendering the training budget an **easy target for cost-cutting**.

Brinkerhoff, R.O. and Gill, S.J. 1994.

What was contributing to this gap?

Training was modelled in the tradition of schoolroom education – on learning objectives (which are distinct from workplace performance).

(Baldwin and Ford, 1988a; Baldwin and Ford, 1988b)

Attempts to better the transfer of learning focused on providing even better training – rather than considering that transfer might require something different.

(Baldwin and Ford, 1988a; Baldwin and Ford, 1988b)

Until the 1980s, most researchers (graduates of the education system) were still measuring the effectiveness of training interventions against learning objectives - not workplace outcomes.

(Huczynski and Lewis, 1980)

What are the factors that influence training transfer?

The earliest studies of transfer took Kirkpatrick's hierarchical model of training outcomes (reaction, learning, behaviour & results) as the basis of results.

Later studies (Porter 1968) (Steers 1975) turned away from such passive assessment to a proactive effort to identify the levers that could improve transfer effectiveness.

Factors such as 'trainability' 'climate' and 'social setting' introduced complexity into the research field and in 1998, Baldwin and Ford proposed a direction for future research with the clustering of three high order factors:

- 1 Training design (delivery) **(Intervention)**
- 2 Trainee characteristics **(Individual)**
- 3 Work environments **(Environment)**

Research began to make links between transfer and other factors such as motivation, line-manager support, expectations and whether or not learners perceived the learning to be potentially useful or practical.

In 2000, Holten et. al. identified the following factors affecting transfer:

Five factors affecting transfer across any/all training programme:

- *Transfer effect performance*
- *Performance outcome expectations*
- *Resistant/open to change*
- *Performance self-efficacy (whether they think they can do it)*
- *Performance coaching.*

Eleven factors affecting transfer across a particular training programme:

- *Learner readiness*
- *Motivation to transfer*
- *Personal outcomes (positive)*
- *Personal outcomes (negative)*
- *Personal capacity*
- *Peer support*
- *Supervisor support*
- *Supervisor sanctions*
- *Content validity*
- *Transfer design*
- *Opportunity to use.*

Three higher order factors

- *Climate*
- *Job utility*
- *Rewards*

What are the factors that influence 'soft' skills training transfer for leaders?

One of the few studies to attempt analysis of transfer in 'soft' skills training:

1 Social Support	<i>Networks, peers and supervisor</i>
2 Adoption environment	<i>Appreciation for performance and innovation</i>
3 Continuity and maintenance	<i>Maintenance and re-lapse strategies</i>
4 Situational context	<i>Frequency, difficulty and criticality of use</i>
5 Systemic forces	<i>Alignment of pressures, priorities and incentives</i>

(Gilpin-Jackson and Bushe, 2007)

What is the evidence that training transfer enhances the effectiveness of training and results in improved workplace performance?

Most attention is devoted to Burke and Hutchins (2007) who tested the empirical evidence for transfer from research across management, HR, adult learning performance improvement and psychology literatures.


Burke and Hutchins assert that minimal empirical support exists for:

Learner	Intervention	Environment
<ul style="list-style-type: none"> • Motivation to learn • Motivation to transfer • Extroversion 	<ul style="list-style-type: none"> • Needs analysis • Active learning • Technological support 	<ul style="list-style-type: none"> • Strategic link • Accountability

Burke and Hutchins suggest that research is needed:

Learner	Intervention	Environment
<ul style="list-style-type: none"> • Motivation to learn • Motivation to transfer • Extrinsic vs. intrinsic motivation • Extroversion • Conscientiousness • Openness to experience • External vs. internal locus of control 	<ul style="list-style-type: none"> • Needs analysis • Over-learning • Cognitive overload • Active learning • Error-base examples • Self-management strategies • Technological support 	<ul style="list-style-type: none"> • Strategic link • Transfer climate • Supervisory support • Accountability

Those that are deemed to have a strong or moderate relationship with transfer are described in the conclusion (including those which would benefit from even more research):



Conclusion

Of 17 factors with a 'proven' relationship with transfer:

<ol style="list-style-type: none"> 1. Cognitive ability 2. Self efficacy 3. Anxiety/negative affectivity 4. Openness to experience 	<p><i>Formed the historical focus of the largely educational effort to improve the effectiveness of training</i></p>
<ol style="list-style-type: none"> 5. Behavioural Modelling 6. Error-based examples 	<p><i>Design techniques</i></p>
<ol style="list-style-type: none"> 7. Pre-training motivation 8. Perceived utility 9. Career planning 10. Organisational commitment 11. Learning goals 12. Content relevance 13. Practice and feedback 14. Transfer climate 15. Supervisory support 16. Peer support 17. Opportunity to perform 	<p><i>Proved to correlate with transfer but from very few studies.</i></p> <p><i>An opportunity for research where the 'acid test' will be sustained and measurable improvements in workplace performance.</i></p> <p><i>All the above can be influenced by practitioner intervention.</i></p>

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