

**Evaluating the Effectiveness of Learning Transfer - Proposed
Model for the Public Administration and
Administration Development Institutes in the
GCC (Gulf Cooperation Council) Countries**

By

Prof. Mani Sridhar

**Program Implementation Director, Asia 'e' University, MENA Region
Managing Director, Key Alliance Consultancy Co. WLL Kingdom of Bahrain**

P.O. 31685, Manama

Kingdom of Bahrain

Email: msridhar@kaccwll.com

**Evaluating the Effectiveness of Learning Transfer - Proposed Model for the Public
Administration and Administration Development Institutes in the
GCC (Gulf Cooperation Council) Countries**

By

Prof. Mani Sridhar

Program Director, Asia 'e' University, MENA Region

Submitted to

Working Group I

Education and Training Program: Aligning Missions and Quality

2013 Joint Congress of IIAS-IASIA

Addressing the Research Question "Evaluation"

ABSTRACT

Research from all over the world shows that trainees consistently rate training content as not being strongly related to what they need on their jobs. In addition, they typically say that the content is not taught in a way that they know how to apply it on their jobs (Translogix Research, 2009).

The aim of this paper is to examine the learning transfer effectiveness commencing with Learning Process (from knowledge to performance capability) to Work Process (from performance capability to sustained performance) for the training and development initiatives of the Public Administration and Administration Development Institutes in the GCC countries and propose a refined model of training transfer.

Table of Contents

Introduction.....	5
Research Questions	8
Measuring Transfer-Enhancing and Transfer-Inhibiting Factors	9
Conceptual Model of LTSI	10
Outcomes of previous research	12
The Belgian Context	12
The Jordanian Context	13
The Malaysian Context.....	15
Using the LTSI in Gulf Cooperation Council Countries Context.....	17
Testing Qualitatively the LTSI	18
Results	19
Discussion	22
References	25

List of Figures

Figure 1 : “Evaluation Research Measurement Model” (Holton: 1996) ⁵	28
Figure 2 : Learning Transfer System Inventory: Conceptual Model of Instrument Constructs.....	29

List of Tables

Table 1 : “LTSI scale descriptions” (Holton & Bates: 1998) ⁴	30
Table 2 : “LTSI factors in the qualitative interview” (Bruno Broucker:2007) ¹³	34

Introduction

“Formal employee training typically involves learning new knowledge, skills, attitudes or other characteristics in one environment (the training situation) that can be applied or used in another environment (the performance situation)” (Goldstein and Ford, 2002)¹, is influenced by the following basic variables:

1. The individual;
2. The training programme; and
3. The transfer climate.

This means that if any person who wants to apply the newly acquired knowledge to the workplace, they must have the underlying competencies and the motivation (individual characteristics); the training programme should be in conformance to the organizational needs (training programme) and the supervisors and colleagues should necessarily encourage and actively support the trainee (transfer climate).

Definition of Transfer is often “the effective and continuing application, by trainees to their jobs, of the knowledge and skills gained in the training, both on and off the job” (Broad & Newstrom, 1992)².

This definition is of paramount significance for the following reasons:

- a) It emphasizes on continual improvement and that training transfer is not short term phenomenon;
- b) It draws a clear relationship between learning and work environment further emphasizing that greater the resemblance, the easier the transfer, which is predominantly transforming acquired knowledge from one situation (the training) to another situation (the performance);
- c) It emphasizes to treat Transfer as a bridge between the learning process and the actual performance on the job;

“A frequently used, though much-criticized, typology for educational effects is Kirkpatrick’s four-level model” (1994; Alliger, Tannenbaum, Bennett, Traver, & Shotland, 1997)³.

He distinguishes the following levels:

1. Reaction Level → How satisfied with the program are its trainees? A low satisfaction level could affect transfer motivation.
2. Learning Level → Have the participants learned anything?
3. Behavior Level (transfer level)
4. Result Level effects on the organization, such as enhanced productivity, improving quality of work, and / or resultant reduction in costs.

“Despite the insight that this typology offers for a quality evaluation of programs, the four-level model has fundamental counterarguments. For example, Kirkpatrick’s

model is incomplete. It assumes that insight on the reaction, learning, behavior, and result levels makes it possible to determine a program's effectiveness" (Holton, 1996⁵; Bates, 2005⁶).

The main aim of Holton's evaluation model for educational and professional programmes was to fill in the gaps of the Kirkpatrick model. By reviewing scientific research and the respective theories on transfer, transfer measurement and effectiveness of educational programmes, he created a new theoretical model, which can be found in Figure 1: "Evaluation Research Measurement Model" (Holton: 1996)⁵.

There has been a lot of learning transfer research that has been done with the Learning Transfer Systems Inventory (LTSI) during the last 15 years. A good number of this research work has been published in refereed journals and a lot others have been done by Ph.D. students as part of their dissertations and theses, which often does not get published or widely disseminated. There may be numerous reasons for this but, the research is of high quality and represents a valuable source of knowledge. This demonstrates the usefulness of the LTSI for analyzing barriers and catalysts to learning transfer across a wide variety of training and organizational contexts. Further, the research shows that the LTSI factors can vary substantially across various sectors of industry segments including public administration and this underscores the importance of having a tool that has a universal validity to measure and assess these factors.

This paper examines the learning transfer effectiveness commencing with Learning Process (from knowledge to performance capability) to Work Process (from performance capability to sustained performance) for the training and development initiatives of the Public Administration and Administration Development Institutes in most of the Gulf Cooperation Council countries (This study takes into consideration the training programs conducted in the Kingdom of Bahrain, Dubai, Oman, Kuwait and Kingdom of Saudi Arabia) in the areas of project management, strategic human resources and public management and propose a refined model of training transfer.

Research Questions

Two basic questions are addressed:

1. What does transfer of professional training workshops to the workplace mean?
2. Which transfer-inhibiting and stimulating factors can be identified?

“Using a research framework from an adaptation of Human Resource Development model” (Holton 1996⁵; Holton et al. 2000¹²), the Learning Transfer System Inventory is used as a methodological tool to conduct this study. Results reveal that the transfer from the studied workshops and programs is inhibited by factors within the individual, the transfer climate, and the training program.

The main problems seem to be that:

- a) Respondents are insufficiently prepared to enroll;
- b) The climate towards transfer is passive or neutral, and

c) Training shows a gap between theory and practice.

This paper, which provides an incentive to assess other programs, emphasizes that professional workshops and training programs in public administration will be improved if sufficient effort is put into the conceptualization and implementation phases of a program.

This paper further initiates discussion by proposing setting up of an independent examination body on behalf of Public Administration and Administration Development Institutes in the GCC countries to create an examination framework conforming to ISO / IEC 17024 standards for the pre-determined training programs, evaluate participants and eventually achieve the status of providing internationally accredited professional certification.

Measuring Transfer-Enhancing and Transfer-Inhibiting Factors

The methodological part of this research topic is rather young. In transfer studies, self-developed instruments frequently were used, according to the training program details and the specific research question(s). This was intriguing, given the fact that different instruments were used to measure the same concept. Once again, this is due to the fact that the “original” definition of transfer was too broad to be measured the same way in different programs.

Conceptual Model of LTSI

Learning Transfer Systems Inventory has been used all over the world. Because of its 15 year research history it offers unparalleled validity and power. The LTSI contains 51 items assessing 16 factors. These factors are grouped into 3 categories based on a well-known theory of organizational behavior. They are:



The central concept behind the model is the 'learning transfer system' (Donovan, Hannigan & Crowe: 2001)⁷, which is formed by all the factors in an individual, training programme and organization having an influence on transfer. These three variables are directly related to transfer, though there are also indirect relations, because of the relationships between the variables (Alvarez, Salas & Garofano: 2004)⁸. As transfer climate is only one part of all the transfer influencing factors, transfer can only be measured if all the other factors are taken into account (Wang & Wilcox: 2006)¹⁹. From that point of view, the LTSI recognizes the three basic variables that have been claimed as important in the several conceptual models, starting from the model of Baldwin and Ford (1988)¹⁰.

The structure of the LTSI conceptual model of Instrument constructs can be seen in figure 2 (Holton, Bates & Ruona: 2000)¹². The LTSI only measures transfer inhibiting

and transfer stimulating conditions, while the conceptual model also takes other elements into account like, for example, organizational performance and learning effects (Holton et al.: 2000)¹².

The 16 factors by the LTSI are clustered in four groups (Holton: 2005)²⁰:

1. The opportunities to use knowledge and expertise (ability)
2. The motivation to use knowledge (motivation)
3. The work environment that allows the application of knowledge (work environment)
4. Participant characteristics (secondary influences)

‘Ability’ is the primary layer and utilizes a few factors, which could hinder transfer. ‘Content validity’ and ‘transfer design’ are two components referring to the content of the training workshops.

‘Motivation’: It is critical that the participants are determined and sure that the effort they put in will yield positive influence at the workplace.

‘Environment’: This cluster contains factors referring to relationships between employee and supervisor, and colleagues and to potential (positive or negative) rewards, depending on transfer.

“Respondents fill in the LTSI three to six months after completing the educational programme. On a Likert scale they point to what extent they agree or disagree with the items. The results from the LTSI are used to judge the quality of the transfer

climate and to make clear where efforts must be made to increase the transfer level” (Donovan, Hannigan & Crowe: 2001)⁷. “The 16 factors are being defined and described in table 1 LTSI scale descriptions” (Holton & Bates: 1998)⁴.

“It is clear that the LTSI factors are measured at the individual level (perception), even the climate, which is logically situated at the group level” (Holton, Bates & Ruona: 2000)¹²:

Outcomes of previous research

The Belgian Context

“The Learning Transfer System Inventory seems to be useful in a Belgian administration context, though not all its factors are present. Because this instrument wants to be able to measure transfer inhibiting and stimulating conditions in all types of organization, it is obvious that some factors are more relevant to the private than to the public sector. Some factors that have been removed such as ‘learner readiness’, are relevant to the public sector, but not necessary to measure transfer inhibiting or stimulating conditions. Removing some factors also reduces the number of items in the survey. As the main aim is to measure factors within the individual, the training programme and the transfer climate in 2008, it is more important to have a few really important factors per variable than all factors to limit the risk of non-response because of the survey-size. Finally, the absence of some factors in the Belgian civil sector is on itself an important indication of transfer inhibiting conditions”. (Bruno Broucker:2007)¹³

The Jordanian Context

Extract from the “Validation of the Learning Transfer System Inventory: A study of supervisors in the public sector in Jordan” (Abdulfattah Yaghi, Doug Goodman, Elwood F. Holton, Reid A. Bates)¹⁴

“Jordanian policymakers rely on trained supervisors to lead organizational change in public administration. The impact of training, however, remains weak unless trainees apply what they have learned (training transfer). In order to assess training transfer, the present study validates a Classic Arabic version of the Learning Transfer System Inventory (CALTSI). The instrument was administered to a random sample of 500 supervisors. Exploratory factor analysis with oblique factor rotation validates 15 of the original 16 factors of the LTSI and explains about 65% of the common variance. These findings and their implications are discussed.” (Abdulfattah Yaghi, Doug Goodman, Elwood F. Holton, Reid A. Bates)¹⁴

“Environmental obstacles to transfer and job space and transfer consequences emerged as a result of a combination of two factors each. In the training-in-general domain, six factors emerged with 24 items and closely matched those factors found in the original LTSI. The feedback construct split into two factors where one measures the feedback in terms of a verbal versus actual help.

These results are consistent with other cross-cultural instrument validation research done with the LTSI. For example, Chen (2003)¹⁵ validated the LTSI in Taiwanese with

a sample of 583 trainees from 20 different organizations. The same factor analysis procedures were employed and resulted in validation of 15 factors (transfer design and opportunity to use emerged as one factor and was named transferability) that showed acceptable reliabilities ranging from 0.65 to 0.92.

Yamnill (2001)¹⁶ validated the LTSI with a sample of 1029 subjects from 60 different organizations in Thailand. The results of the factor analysis showed that 16 factors were valid in Thailand and were closely similar to the original factors found in the LTSI. Taken together with the results of the present study, these findings suggest that most of the constructs assessed by the LTSI may be robust across cultures.

Results also indicated that the learning transfer system perceptions in this Jordanian sample differed significantly across individual (educational level and years of experience) and situational variables (types of training, choice of training, sector of the organization and task of the organization). These results are consistent with other research (Chen, 2003¹⁵; Holton *et al.*¹⁴, in press; Yamnill, 2001¹⁶), suggesting that learning transfer systems are not homogeneous and can vary substantially depending on multiple factors including organization type, type of training and degree of choice provided in training attendance.

In general, results showed that individual variables can have an impact on how people perceive transfer systems. Specifically, employees with lower levels of education reported higher levels of motivation to transfer training on the job than did employees with higher levels of education. They were also more likely to perceive that their transfer efforts will result in some kind of performance

improvement, which in turn will lead to a desirable outcome (e.g. salary increase). Employees with lower levels of education also perceived lower levels of resistance in the workplace to the transfer of learning (e.g. higher levels of openness to change) and perceived the content of training as more consistent with their job requirements.

Learning transfer system perceptions were also found to be significantly different across several situational variables including types of training, choice of training, sector of the organization and task of the organization. The examination of the learning transfer system perceptions across training types revealed that 11 of the 18 factors were significantly different depending on the type of training provided by the organization.” (Abdulfattah Yaghi, Doug Goodman, Elwood F. Holton, Reid A. Bates)¹⁴

The Malaysian Context

“Apart from the practical implications for HRD managers, trainees and their supervisors arising from this study, there are also a number of contributions to HRD theory made and these are summarized below:

First, this thesis developed a structural model for *motivation* to transfer training which, for the first time includes a role for *sharing behaviour*. The model amends existing key HRD models (Holton 19965; Holton et al. 200012) and makes a key contribution to HRD theories of transfer of training.

Second, this thesis found that trainees across three training types (general training; management/leadership training; computer training) and a range of demographics (age; gender; level of education; work experience; position of employment) indicated strong levels of sharing their learned knowledge and skills in the workplace. The fact that *sharing behaviour* can be generalised across the training types and demographics points to it being a potential transfer of training factor.

Third, the thesis found that sharing behaviour contributes to the formation of *positive personal outcomes* as a result of trainees applying their training, which in turn, positively influences their *motivation to transfer* training.

Fourth, it was determined that *sharing behaviour* contributes to the formation of *feedback*, which in turn, positively influences trainees' *motivation to transfer* training.

Fifth, the study revealed that *sharing behaviour* contributes to the formation of *content validity*, which in turn, positively influences trainees' *motivation to transfer* training.

Finally, sharing behaviour was found to contribute to the formation of *personal capacity for transfer*, which in turn, positively influences trainees' *motivation to transfer* training.

This thesis has therefore presented a broader view of the phenomenon of transfer of training and the role that knowledge *sharing behavior* plays in this dynamic than was previously available. These findings extend the mainstream literature and importantly contribute to a revised model for *motivation to transfer* which amends the two key models in the literature (Holton 1996⁵; Holton et al. 2000¹²) and provides a new insight into the understanding and operation of a third model, TPB (Ajzen 1991¹⁷) and its role in transfer of training. This extended view provides an exploration of the importance of sharing the knowledge learned in workplace training as a precursor to transferring that training to the job. Thus the study contributes to theories relating to learning in the workplace". (Shahril Bin Baharim, 2008)¹⁸

Using the LTSI in Gulf Cooperation Council Countries Context

The training and development initiatives of the Public Administration and Administration Development Institutes in the Gulf Cooperation Council (GCC) countries of the Kingdom of Bahrain, Dubai, Oman, Kuwait and Kingdom of Saudi Arabia in the areas of project management, strategic human resources and public management during the period 2009 to 2012, were taken into consideration for this research. The main purpose of this research was to measure the competencies achieved by the public servants across the selected GCC countries during the training workshops and training programs, and the LTSI transfer inhibiting factors

and stimulating conditions are relevant to the GCC countries. This test and its results are described in this paper.

Testing Qualitatively the LTSI

The target group for the test consisted of public servants from the various Government Agencies and Ministries, spread throughout the GCC Countries. The population group contained 220 public servants who had finished the training programmes since 2009.

110 public servants were willing to participate in a qualitative in-depth interview about the transfer of the programme in the government and public administration sector. Though 110 persons is a small group considering the number of countries involved, it is still a response rate of 50%. Besides, the main purpose was to obtain a qualitative picture of the usefulness of each LTSI factor as depicted in “Table 2 : LTSI factors in the qualitative interview” (Bruno Broucker: 2007)¹³ extracted and adapted to the GCC countries context. A diverse small group is in this case more important than a large homogenous group.

The respondents came from different organizations such as:

- Civil Services Bureau
- Ministry Health
- National Audit Council
- Central Informatics Organization

- Ministry of Industry and Commerce
- Ministry of Education

Numerous questions related to the regional context and question relating to the transfer were added, taking into account that LTSI has provision to question only the transfer inhibiting and transfer stimulating factors” (Holton 1996⁵; Holton et al. 2000¹²). “Respondents were also asked if they did use what they had learned during the programme, and did have the feeling that they could do their job better because of the programme. (Bruno Broucker:2007)¹³

Results

The results for each of the factors are described below:

Learner Readiness: The results indicate that most of the respondents were well prepared to enroll and enter into the training programme. This is perhaps due to the fact that the participants for the training programme were nominated by their respective Head of Department after ascertaining the participant’s interest in attending such training program and after a carefully designed pre-workshop assessment.

Performance self-efficacy: No one undermined their own capabilities to transfer the knowledge and the skills to the workplace. This is perhaps due to the fact that all the nominated participants from the respective ministries had already sufficient working knowledge in the area(s) that they were attending the training programme.

Motivation to transfer learning: The result indicated that each respondent wanted to transfer knowledge to workplace, but felt it is not always easy or evident.

Transfer effort – performance expectations: The respondents believe that transfer will lead to a better functioning in the job, and may lead to a more rapid or career change or to a change in job function. Though they know transfer isn't a guarantee for this, they expect some kind of positive consequence to their transfer of learning.

Feedback/performance coaching / Supervisor/manager support & sanctions: All the respondents had support from their supervisor / head of department to enroll on the programme, but only some of them were asked to give feedback about the programme and how it was going. The results indicate that there is actually no attention given to transfer. The only important thing is to perform well.

Peer support: The result indicate that all the respondents had peer support. This is perhaps that all the public servants attending the training workshops in different areas of specialization were nominated personnel having at least basic working knowledge in the area in which the participant undertook the training program.

Resistance/openness to change: 65% of the respondents perceived their organization as innovative, the other 35% as conservative.

Personal outcomes – positive & negative: For most of the public servants there was no outcome at all. Some of them indicated that they would receive rewards for their graduation, but not for transfer or performance

Opportunity to use learning: The result indicates that most of the respondents did not change their work role or content and hence could not apply the learning in a structured way

Personal capacity to transfer: The respondents had to find for themselves the time and the energy to apply newly acquired knowledge in the workplace.

Perceived content validity / transfer design: All participants were very much satisfied about the quality of the raining programme. However, most of them perceived a gap between theory and practice.

In the regional context and as discussed earlier, numerous questions about transfer were asked to each participant. It was ensured that the question were generic and non-intrusive. The respondents were asked to think and reflect whether they were to use the knowledge and skills gained during the training program. Most of the respondents said that the training workshop(s) and training programmes provides great knowledge and insight into the functioning and management as well securing the necessary tools to deploy the knowledge at the workplace. However, intriguingly even after all this, the interaction with the superiors and Heads of Departments and their opinions reveal that the demonstrated work deliverables did

not increase and felt that the transfer was vague and maybe in all probability indirect.

Discussion

These results indicate that the transfer climate in the public services and government sector in the selected GCC countries where this research study was conducted is passive. Most of the Departments and agencies do nominate and send employees to the training workshops and programmes. However, the inference is that they perceive that their role ends there once enrolment is complete. After the workshop(s) / training programme is completed, the employees are expected to continue with their job, and there is no problem for the employer(s), if they put the newly acquired knowledge to use at work or not. It is evident that there is also no system in place to change or adjust job content for the participants who have completed these workshop(s) / training programs and it seems that this is an exception rather than a rule

Based on the above, it is evident that the above results underline the impression that training programs and workshops in the areas of project management, public administration, human resources and customer services within the Gulf Cooperation Council countries are not sufficiently transferred at all.

This raises a pertinent debate as to how these results should be interpreted and articulated? Inference that there transference is not sufficient does not construe that that the workshop(s) and training programmes are useless. Further introspection research into the functioning and management of the government and public administration services reveals that transfer may be limited to the individual thinking process in terms of analyzing before performing something, in the light of the newly acquired knowledge before embarking on a strategy or taking a critical decision. “In that case one can argue that transfer of such programmes is part of the reflection one has to do before the actual performing. And such transfer seems to be vague. If transfer is limited to ‘taking theories and knowledge into account’, one may conclude there is no transfer at all” (Bruno Broucker:2007)¹³.

Based on the above discussions, this research paper extols that LTSI will act as an indispensable instrument for the purposes of diagnosis of the transfer obstacle and primary intervention for all the training programs and workshops across all industry and public service sector domains. However, this paper further makes an attempt to suggest that it is essential to target active **Public Administration Professionals** within the region to help them chart their professional development and establishing clear and effective career paths by endorsing the expertise and knowledge under an official context with the help of an international accreditation system.

The proposed aim of the accreditation system is to certify the expertise and knowledge under an official context for the professional conduct of public administration work of active Official Public Administration Professionals initially

within the Kingdom of Bahrain and later expanded to the GCC member countries bound by code of ethics, principles and good practices of Public Administration Services.

The proposed certification program for selected Institute of Public Administration (IPA) programs which should be based on Code of Conduct and Ethics or Ethical Guidelines for Public Administration Practice and Fundamental Principles of Public Administration Examination and Portfolio-based is intended to be accredited through the International Organization of Standardization (ISO) and the International Electro technical Commission (IEC) ISO/IEC 17024 certification of personnel as administered in the United States by American National Standards Institute (ANSI). This accreditation achievement verifies compliance with requirements outlined in the internationally accepted standards for assessing personnel certification programs (ANSI/ISO/IEC 17024) and for the operation of accreditation bodies (ISO/IEC 17011).

This paper further argues that when implemented appropriately, accreditation can strengthen the fundamental leadership and steering role of public administration professionals and authorities and will position as an eventual tool for international categorization and recognition of public administration services organizations in GCC countries.

References

1. Goldstein, I. L., & Ford, J. K. (2002). *Training in organizations* Belmont. CA: Wadsworth.
2. Broad, M. L. en JW Newstrom (1992), *Transfer of Training: Action-Packed Strategies to Ensure High Payoff from Training Investments*.
3. Alliger, G. M., Tannenbaum, S. I., Bennett, W., Traver, H., & Shotland, A. (1997). A meta-analysis of the relations among training criteria. *Personnel psychology*, 50(2), 341-358.
4. Holton, E., & Bates, R. (1998). *Learning transfer system inventory: Administrator's guide*. Retrieved February 2, 2007, from http://www.edholton.com/_private/New%20EdHolton/LTSI.htm
5. Holton, E. (1996). The flawed four-level evaluation model. *Human Resource Development Quarterly*, 7(1), 5-21
6. Bates, R., et. al. (2005). Organizational learning culture, learning transfer climate and perceived innovation in Jordanian organizations. *International Journal of Training and Development*, 9(2), 96-109.

7. Donovan, P., Hannigan, K., & Crowe, D. (2001). The learning transfer system approach to estimating the benefits of training: empirical evidence. *Journal of European Industrial Training*, 25(2/3/4), 221-228.
8. Alvarez, K., Salas, E., & Garofano, C. M. (2004). An integrated model of training evaluation and effectiveness. *Human resource development Review*, 3(4), 385-416
9. Welch, W. J., Chabrashvili, T., Solis, G., Chen, Y., Gill, P. S., Aslam, S., ... & Wilcox, C. S. (2006). Role of extracellular superoxide dismutase in the mouse angiotensin slow pressor response. *Hypertension*, 48(5), 934-941.
10. Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel psychology*, 41(1), 63-105.
12. Holton III, E. F., Bates, R. A., & Ruona, W. E. (2000). Development of a generalized learning transfer system inventory. *Human Resource Development Quarterly*, 11(4), 333-360
13. Broucker, B. (2007, September). Measuring transfer of Public Management Programmes: The Learning Transfer System Inventory in the Belgian federal administration. In *Public Administration and the Management of Diversity: EGPA Conference 2007, Madrid, Spain, September 19* (Vol. 22, p. 2007).

14. Yaghi, A., Goodman, D., Holton, E. F., & Bates, R. A. (2008). Validation of the learning transfer system inventory: a study of supervisors in the public sector in Jordan. *Human Resource Development Quarterly*, 19(3), 241-262.
15. Chen, H. (2003). Cross-cultural construct validation of the learning transfer system inventory in Taiwan. USA: Louisiana State University. [unpublished dissertation].
16. Yamnill, S. (2001). *Factors affecting transfer of training in Thailand*. Unpublished doctoral dissertation, University of Minnesota, Twin Cities.
17. Ajzen, I. (2002). Constructing a TPB questionnaire: Conceptual and methodological considerations.
18. Baharim, S. B. (2008). The influence of knowledge sharing on motivation to transfer training: a Malaysian public sector context (Doctoral dissertation, Victoria University).
19. Wang, G. G., & Wilcox, D. (2006). Training evaluation: knowing more than is practiced. *Advances in Developing Human Resources*, 8(4), 528-539.
20. Holton, E. F. (2005). Holton's evaluation model: new evidence and construct elaborations. *Advances in Developing Human Resources*, 7(1), 37-54.

Figure 1 : “Evaluation Research Measurement Model” (Holton: 1996)⁵.

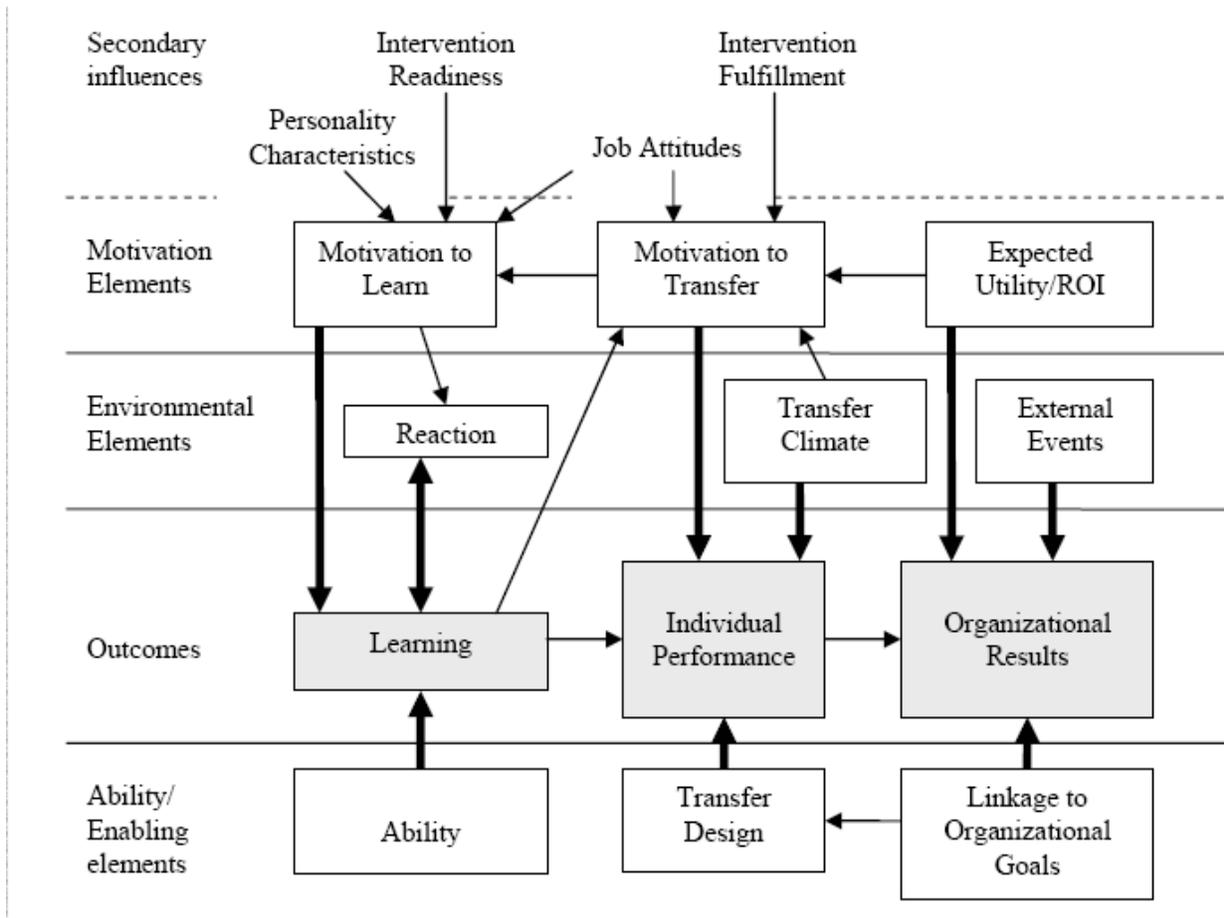


Figure 2 : Learning Transfer System Inventory: Conceptual Model of Instrument Constructs

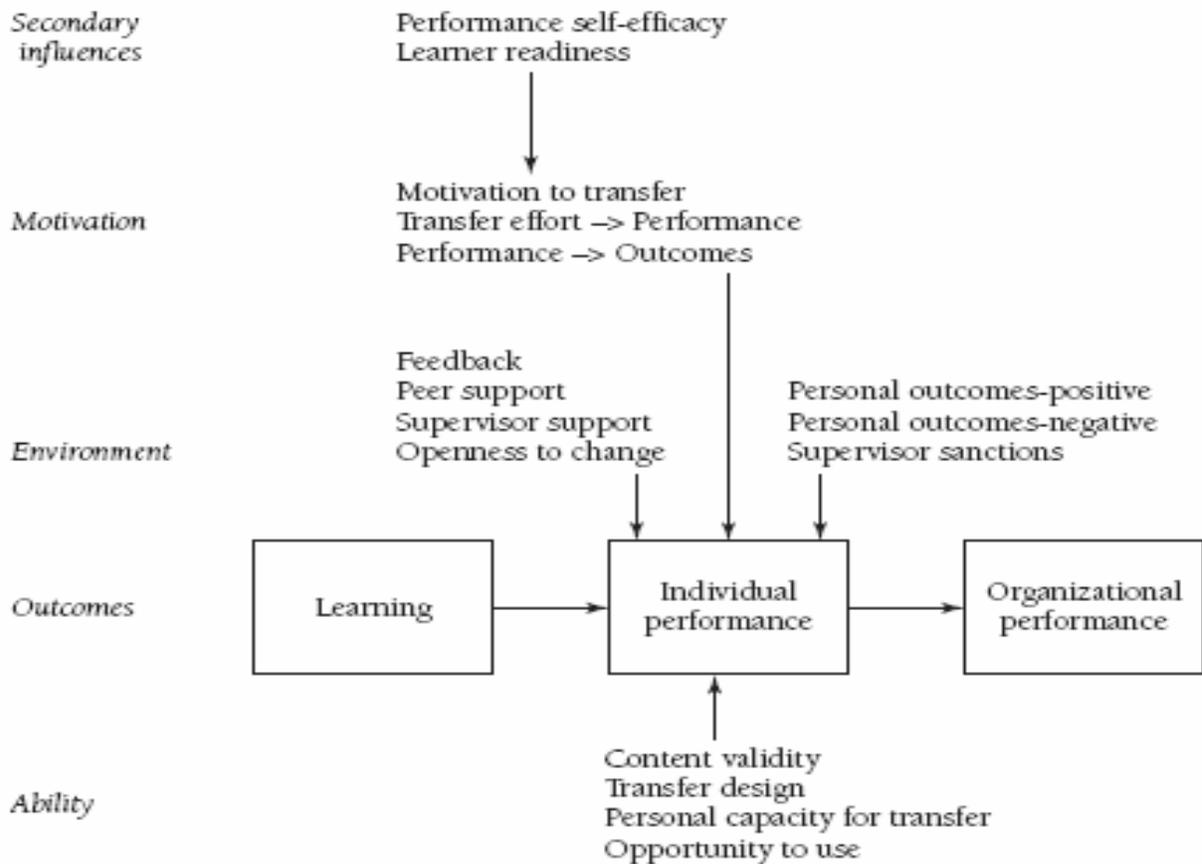


Table 1 : “LTSI scale descriptions” (Holton & Bates: 1998)⁴

Scale Name	Scale Definition	Scale Description
Trainee Characteristics Scales		
Learner Readiness	The extent to which individuals are prepared to enter and participate in a training program.	This factor addresses the degree to which the individual had the opportunity to provide input prior to the training, knew what to expect during the training, and understood how training was related to job-related development and work performance.
Performance Self-Efficacy	An individual's general belief that they are able to change their performance when they want to.	The extent to which individuals feel confident and self-assured about applying new abilities in their jobs, and can overcome obstacles that hinder the use of new knowledge and skills.
Motivation Scales		
Motivation to Transfer Learning	The direction, intensity and persistence of effort toward utilizing in a	The extent to which individuals are motivated to utilize learning in their work. This includes the degree to which individuals feel better able to perform, plan

	work setting skills and knowledge learned in training.	to use new skills and knowledge, and believe new skills will help them to more effectively perform on-the-job.
Transfer Effort— Performance Expectations	The expectation that effort devoted to transferring learning will lead to changes in job performance.	The extent to which individuals believe that applying skills and knowledge learned in training will improve their performance. This includes whether an individual believes that investing effort to utilize new skills has made a difference in the past or will affect future productivity and effectiveness.
Performance— Outcomes Expectations	The expectation that changes in job performance will lead to outcomes valued by the individual.	The extent to which individuals believe the application of skills and knowledge learned in training will lead to recognition they value. This includes the extent to which organizations demonstrate the link between development, performance, and recognition, clearly articulate performance expectations, recognize individuals when they do well, reward individuals for effective and improved performance, and create an environment in which individuals feel good about performing well.

Work Environment Scales		
Feedback/Performance Coaching	Formal and informal indicators from an organization about an individual's job performance.	The extent to which individuals receive constructive input, assistance, and feedback from people in their work environment (peers, employees, colleagues, managers, etc.) when applying new abilities or attempting to improve work performance. Feedback may be formal or informal cues from the workplace.
Supervisor/Manager Support	The extent to which managers support and reinforce the use of learning on-the-job.	This includes managers' involvement in clarifying performance expectations after training, identifying opportunities to apply new skills and knowledge, setting realistic goals based on training, working with individuals on problems encountered while applying new skills, and providing feedback when individuals successfully apply new abilities.

Supervisor/Manager	The extent to which individuals	This includes when managers oppose the use of new skills
--------------------	---------------------------------	--

Table 2 : “LTSI factors in the qualitative interview” (Bruno Broucker:2007) ¹³

Scale Name	Question description
Trainee Characteristics Scales	
Learner Readiness	The participants in training workshops of Project Management, Human Resources and Customer Services had to answer the question as to what motivated them to join, what information they received about the workshops prior to joining and what outcomes did they expect once they completed attending the program.
Performance Self-Efficacy	The participants had to answer about their learning outcomes and results after the workshop(s) and also with regards their perceived self-efficacy
Motivation Scales	
Motivation to Transfer Learning	Respondents were asked about the feeling they had after finishing the programme and returning back to work.
Transfer Effort—Performance Expectations	Participants had to answer Questions about advantages after the programme
Performance—Outcomes	

Expectations	
Work Environment Scales	
Feedback/Performance Coaching	Respondents were asked about the involvement of colleagues and supervisor in the programme: were they well informed? Were they interested? Were they supportive in the learning and transfer process? Etc.
Supervisor/Manager Support & Sanctions	
Peer Support	
Resistance/openness to Change	Organizational culture: do the respondents perceive their organization as willing to change or not?
Personal Outcomes-Positive & Negative	Are there any positive or negative outcomes for the respondent, due to the programme?
Ability Scales	
Opportunity to Use Learning	Did the respondent receive the opportunity to use what they had learned in the workplace?
Personal Capacity for Transfer	Do they have the time and space to transfer what they have learned? Is there a lot of stress on the workplace?
Perceived Content Validity	Can the content of the educational programme easily be compared with the workplace? Is there a gap between theory and practice? Are they satisfied about the programme? Are the used examples and
Transfer Design	

	cases relevant?
--	-----------------

In Table 2 above (Bruno Broucker:2007)¹³ extracted and adapted to the GCC countries context, the way each LTSI Factor was questioned is depicted