

## Design and Validation of the Questionnaire for Organizational Factors Affecting the Transfer of Learning to the Workplace

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### Article history:

Received date: 5 September 2017

Review date: 6 November 2017

Accepted date: 27 January 2018

Printed on line: 20 December 2018

### Keywords:

Learning transfer to the workplace, Organizational factors, Grounded theory.

### Abstract

**Purpose:** The aim of this study was to design and validate the questionnaire of organizational factors affecting the transfer of learning to the workplace in Islamic Azad Universities of the west of Iran. **Methodology:** The method of data collection was mixed of sequential exploratory design type. Qualitative data was collected through semi-structured interview with 15 people including faculty members and specialists of training and human resource development who were selected through purposive sampling of theoretical and snowball sampling type. The analysis of qualitative data was carried out through grounded theory method. In quantitative section, researcher-made questionnaire was investigated by 11 experts and its relative content validity was calculated. In this way, the validity of the questionnaire was verified by the specialists and its reliability was calculated by Cronbach's alpha (0/873). Afterwards, the final version was distributed among 309 employees from the universities. To validate the designed tool, confirmatory factor analysis was used. SPSS and Lisrel software were used for this purpose. **Finding:** In the qualitative section, 25 components were identified which were presented in paradigmatic model template including 6 dimensions; causal conditions, core phenomenon, context conditions, intervening conditions, strategies and consequences. The quantitative stage results showed that fit indices, factor loads and t-values obtained from each criterion were fit and the 6 main dimensions and their factors had the ability to explain the variable of learning transfer. **Conclusion:** The organizational factors, especially organizational culture, have an important place in learning transfer due to their role as facilitator and stimulator.

**Please cite this article as:** Khakrah F, Malekian F, Saeidipour B, Kavyani E. (2018). Design and Validation of the Questionnaire for Organizational Factors Affecting the Transfer of Learning to the Workplace, *Iranian journal of educational Sociology*, 1(9), 191-204.

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## 1. Introduction

Organizations yearn to achieve performance improvement and to do so, it is imperative that trainees are capable of incorporating new learning acquired from training programs into their daily job tasks (Blume, Ford, Baldwin & Huang, 2010; Wenzel & Cordery, 2014). Whilst the benefits of training have been well documented (Bhatti, Battour, Sundram & Othman, 2013; Blume et al., 2010), there is also research to suggest that attending training does not guarantee learning and use of new knowledge and skills (Martin, 2010; Rebelo & Gomes, 2011). Providing training to employees is of little value to an organization unless that training results in learning that is utilized in the workplace and enhances the employees' work performance (Lancaster, 2016; Blume et al., 2010). Over the past 30 years, there has been an explosion of research in the human resource development (HRD) literature devoted to transfer of learning (Baldwin, Ford, Blume, 2017, p.17).

Sector experts predict, in the latest trend studies, that the development of further training measures that are conducive to the transfer of learning will be a high priority for training management for companies in the future. That learning in further training ought to be sustainable and transferable is a requirement that is not new and that has engaged the practice of further vocational training for many decades now. The consistent topicality of the subject matter is all the more illustrative of the challenge that is associated with the design of learning environments that are conducive to the transfer of learning in organizations (Schneider, 2014). Learning transfer in an organizational context is the use by individuals of the knowledge, know-how, and skills learned during training in work contexts comprising a certain degree of newness, with the priority objective of improving their performance (Roussel, 2014).

What triggered this strong emphasis on the learning transfer topic was its critical importance with regard to training program effectiveness as well as estimates indicating that only 10 to 15 % of what is learned in training is actually transferred back to the job. Given the low learning transfer figures, the widely held belief has been that unless the training transfer process is maximized, the return of training investments, and thus the reputation of the training function, can be greatly compromised (Kontoghiorghes, 2014). These estimates suggest the importance of finding strategies to enhance learning, improving organizational productivity and providing a return on the organization's investment ((Lancaster, 2016). Therefore, organizations that rely on training to improve individual job competence and overall organizational success need to know the factors that facilitate or inhibit training transfer (Seiberling & Kauffeld, 2017, p.2).

The conceptual framework of traditional training transfer research has treated training "as a non-systemic phenomenon, independent of the variables that affect performance" (Kontoghiorghes, 2002). As training transfer is an important criterion of a training program's success, a number of researchers have called for studies that analyze factors affecting training transfer. Until now, the available literature has revealed three main influences on training transfer: (1) The training design, (2) The trainee characteristics and (3) The work environment (Velada & Caetano, 2007, p.284). However, the impact of work-environment factors on training transfer has been incorporated to a lesser degree in training transfer models and research designs (Ballesteros & De Saa 2012; Brown & McCracken 2009; Kontoghiorghes, 2002; Velada et al, 2007).

While trainings can be applied in the workplace and several studies have emphasized the role and importance of these factors in increasing the transfer rate of learning. Work environment factors are considered directly subject to control and therefore can be actively managed to create environments that are favorable to transfer. Also, the results of previous studies indicate that the transfer of learning to workplace in educational institutions, especially universities has been underestimated. Based on the importance of this dimension, this study focused on designing and validation of the pattern for organizational factors affecting the transfer of learning to the workplace in Islamic Azad universities of the west of Iran. The following research questions were raised. It is expected that the results of this study, theoretically, will lead to a better understanding of the possible shortcomings of organizational training management, especially in educational

organizations and in practical terms, it will also lead to a better understanding of the real obstacles to transfer of learning by university administrators and improving their decisions to enhance the effectiveness of organizational training. Hopefully, the most important questions of the present research were as follows:

1- What are the dimensions of organizational factors affecting the transfer of learning to the workplace in Islamic Azad universities of the west of Iran? 2- Is the questionnaire of organizational factors affecting the transfer of learning to the workplace in Islamic Azad universities of the West of Iran is valid?

## 2. literature Review

Transfer of learning refers to the degree to which trainees regularly apply to their jobs the knowledge, skills, behaviors, and attitudes learned in training. This requires a generalization of the training to the work context and its maintenance over time, with the intention of improving the trainee's job performance (Velada & Caetano, 2007, p.283). This literature was first summarized by Baldwin and Ford (1988) and recently updated by Blume et al. (2010) (Lancaster, 2016). In the existing literature, the terms "transfer of learning" and "transfer of training" are usually used synonymously instead of each other (Khasawneh, Bates & Holton, 2006). Basically, all courses are based on the assumption that persons have the ability to transfer what they learn to the work environment (Kirkpatrick & Kirkpatrick, 2005, p.6). However, there is a common belief in the training field that only a small amount of what is taught in a training program is actually transferred to the job. For example, Burke and Hutchins (2007) note that researchers suggest that little of what is learned in training programs is transferred to the job to meet organizational objectives (Ford, Yelon & Billington, 2011).

The issue of learning transfer may be, thus, considered a worldwide phenomenon particularly in emergent economies relying on human potential as a basis for sustainable competitive advantage. Nonetheless, dealing with learning transfer seems to be complex since it is intertwined in a large system covering a wide array of factors that may be either favorable or unfavorable in assuring learning effectiveness (Bouzguenda, 2014, p.23).

In this research, the focus is on analyzing learning transfer from a systemic approach in order to, on one hand, better apprehend the phenomenon and, on the other hand, provide a framework for practice. In this regard, previous scholars and researchers have sought to identify the organizational factors affecting the transfer of learning to the workplace; these factors are reviewed to gain an understanding of what is and what is not known about organizational factors for learning and to identify any inconsistencies and gaps in the literature. The work environment comprises aspects such as supervisory support (Blume et al., 2010; Burke and Hutchins, 2007; Kontoghiorghe, 2014; Ghanbari & Zandi, 2018), peer support (Blume et al., 2010; Lancaster, 2016; Capaldo, Depolo, Rippa & Schiattone, 2017), opportunities to apply new skills (Burke and Hutchins, 2007; Schneider, 2016; Ghanbari & Zandi, 2018) and the transfer climate (Blume et al., 2010; Carmichael, 2016).

The findings of Ng and Ahmad (2018) studies indicate that personality traits (i.e. conscientiousness, extraversion, and agreeableness) and social support (i.e. perceived organizational support (POS) and peer support) influenced training transfer via the mediating role of motivation to improve work through learning (MTIWL). Supervisor support, nonetheless, was not a significant predictor of training transfer through MTIWL. The results of Nik Nazli and Sheikh Khairudin (2018) studies showed that work engagement and training simulation are the factors that influence the transfer of training and there is a positive effect of the transfer of training on the organizational citizenship behavior. The result also demonstrated that the transfer of training is the mediator in the relationship between work engagement, training simulation and organizational citizenship behavior.

Chatterjee, Pereira and Bates (2018) have studied the relationship between organization culture, as perceived by employees, and the work-environment-related learning transfer factors in organizations, which

they call learning transfer environment (LTE). Their results reveal that many of the LTE factors are systemically related to perceptions of organization culture type. Some organization culture types support certain learning transfer factors more than others. Specifically, flexible organizations (defined as predominantly clan and/or adhocracy cultures) have a more supportive LTE than stable organizations (defined as predominantly market and/or hierarchy cultures).

In another study, Massenbergh, Schulte and Kauffeld (2017), emphasized the importance of colleagues and managers support to create a high level of motivation for post-training. Results of their study showed that six factors in the pre-training stage and three factors in the post-training stage are significant predictors for transfer motivation. Additionally, the factors before training influenced transfer motivation after training indirectly through pre-training motivation. The study underpins the importance of pre-training conditions for transfer motivation and offers advice to practitioners about focusing on specific factors at different times in the training transfer process.

Ghanbari, Shams Morkani, Arefi and Zandi (2017) tried to study the challenges in the transfer of learning to workplace in public organizations of Kurdistan province. Based on the results, the most important causes of indifference to the transfer of learning included: motivational barriers, barriers related to individual characteristics, improper timing, barriers to teaching, content and evaluation, administrative barriers, supportive barriers and obstacles focused on the job. Factors underlying indifference to the transfer of learning Included: Non-supportive organizational culture, disturbing administrative system, and climate of organizational indifference. Employee strategies in the face of such a situation may be reactive behaviors, negative behaviors and positive compensatory behaviors. The consequences of such a situation, at the individual level were job stillness, job procrastination, lack of creation and deviant behaviors; in addition to, consequences at the individual level were loss of educational investment and reduce organizational success. And also, Shams and Abbasi kasani (2017) did a research in order to investigate the pathology and effectiveness of the transfer of raining to workplace. The results showed that there were 36 damages in the individual, educational and organizational areas of the transfer of training to workplace. They presented some solutions to eliminate these problems.

Sayadi, Rajaipour, Abedini and Gholami (2017) conducted a meta-analysis in order to identify the factors affecting the transfer of training among human resources of medical sciences universities of the west of Iran and concluded that effective transfer of training to the workplace was influenced by five factors "Supervisor support, organizational policies, individual performance evaluation, feedback, and rewards". These factors were categorized into two main organizational and managerial dimensions.

Research has also shown that removing barriers to applying newly acquired skills into the work place is critical to transfer (Martin, 2010). A study conducted by McCracken et al. (2012) which focused on barriers to transfer may help to understand what organizations need to avoid if they wish to provide a supportive learning environment. Such factors include continuous structural change, insufficient resources, limited opportunity to practice new skills and no clear training strategy.

### 3. Methodology

The research was applied and developmental in terms of purpose and the method of data collection was mixed of sequential exploratory design type which carried out in three stages. In the first stage (view documents), for the purpose of comprehensive and accurate access to the dimensions of the organizational factors affecting learning transfer and identification of credible documents in this field, valid foreign and internal citation databases were used. Sampling was purposive at this phase. After removing repetitive cases and those that had a weak relationship with the research objectives, 30 closely related articles were analyzed. In the second phase, semi-structured interviews were used to achieve a rich description of the experiences, attitudes and perceptions of the interviewees on the dimensions of learning transfer. The participants of this

part of the study included 15 people of faculty members and specialists of training and human resource development who were selected through purposive sampling of theoretical and snowball sampling type. Interview questions were 8 open-answer questions, which were designed after reviewing the research background and consulting with specialists on the basis of grounded theory. The analysis of qualitative data was carried out through grounded theory method based on systematic approach and using three stages of open, axial and selective coding and memoring. The reliability and validity of qualitative section were obtained using member checking and peer debriefing. In the third step (quantitative section), the research method is descriptive-survey and includes the implementation of a researcher-made questionnaire with 88 items that its items were extracted from the analysis of documents and interviews. To determine the validity of the questionnaire, content validity ratio was used. In this regard, 11 specialists have reviewed the questionnaire based on the Likert spectrum, "it is necessary", "not necessary" and "useful but not necessary". According to the table designed by Lawshe, for 11 experts, the content validity ratio above 0.59 indicates the suitability of the item. Based on this, 75 items were approved by specialists and 13 items that did not have sufficient content validity ratio were excluded from the main questionnaires.

**Table1:** Content validity of dimensions and components of the organizational factors affecting the transfer of learning questionnaire

Main dimensions	Components	CVR	Total CVR
Core category	Organizational support	0.815	0.768
	Competencies of managers	0.767	
	Climate of learning transfer	0.722	
Causal conditions	Organizational structure	0.767	0.722
	Organizational capabilities	0.677	
	Financial and physical resources	0.722	
Context conditions	Knowledge sharing culture	0.873	0.722
	Exaltation culture	0.677	
	Openness culture	0.767	
Intervening conditions	Organizational policies and laws	0.936	0.809
	Job characteristics	0.630	
	Organizational status of education	0.862	
Strategies	Development of organizational learning culture	0.630	0.780
	Development of participatory and teamwork culture	0.936	
	Institutionalization of experience and expertise in the organization	0.936	
	Performance management	0.630	
	Career management	0.770	
	Review and refine the laws and regulations	0.690	
	Promoting scientific interactions	0.873	
	Creating opportunities for use	0.813	
	Promotion of the unit's training position	0.750	
	Reducing job burnout	0.813	
Consequences	Development of staff capabilities and creativity	0.813	0.797
	Increasing the effectiveness of organizational training	0.750	
	Increasing organizational success	0.813	

The reliability of the questionnaire was estimated using Cronbach's alpha coefficient. The reliability of the whole scale was 0.873 based on the internal consistency of Cronbach's alpha. According to the results, it can be concluded that the designed tool for the variable of organizational factors affecting the transfer of learning is highly reliable.

**Table2:** The reliability of dimensions and categories of organizational factors affecting transfer of learning questionnaire

Variable	Main categories	Sub categories	Items	Cronbach's alpha
organizational factors affecting the transfer of learning	Core category	Organizational support	1-3	0.909
		Competencies of managers	4-6	0.917
		Climate of learning transfer	7-9	0.871
		Core category dimension		0.975
	Causal conditions	Organizational structure	10-12	0.796
		Organizational capabilities	13-15	0.917
		Financial and physical resources	16-18	0.900
		Causal conditions dimension		0.889
	Context conditions	Knowledge sharing culture	19-21	0.792
		Exaltation culture	22-24	0.879
		Openness culture	25-27	0.896
		Context conditions dimension		0.867
	Intervening conditions	Organizational policies and laws	28-30	0.936
		Job characteristics	31-33	0.762
		Organizational status of education	34-36	0.914
		Intervening conditions dimension		0.923
	Strategies	Development of organizational learning culture	37-39	0.831
		Development of participatory and teamwork culture	40-42	0.953
		Institutionalization of experience and expertise in the organization	43-45	0.961
		Performance management	46-48	0.812
		Career management	49-51	0.882
		Review and refine the laws and regulations	52-54	0.840
		Promoting scientific interactions	55-57	0.765
		Creating opportunities for use	58-60	0.914
		Promotion of the unit's training position	61-63	0.831
		Strategies dimension		0.869
	Consequences	Reducing job burnout	64-66	0.873
		Development of staff capabilities and creativity	67-69	0.921
		Increasing the effectiveness of organizational training	70-72	0.780
		Increasing organizational success	73-75	0.911
		Consequences dimension		0.789

Also, for determining the construct validity and determining the factor load of each of the main components of the researcher-made questionnaire, the confirmatory factor analysis test was used. In order to quantitative data analysis, Spss and Lisrel software were used. The statistical population at this stage were the employees of Islamic Azad universities in the west of Iran in 1396-97 (N=1703), which 309 people of them were selected by using random stratified sampling.

#### 4. Finding

In the qualitative part of the present study, 30 documents and 15 interviews were analyzed in three stages of open, axial and selective coding to answer the first question.

In the first stage of open coding, 570 primary raw data were extracted from the documents and 690 initial open extracted from the interviews. In the second stage of open codification, after data retrieval and the integration of repetitive concepts, these initial codes were reduced to 246 secondary codes in the documents and 170 codes in the interviews. Non-repetitive open codes are classified according to the same topics and eventually they formed 25 sub category (organizational structure, organizational capabilities and Financial and physical resources, organizational support, Competencies of managers, climate of learning transfer, knowledge sharing culture, exaltation culture and openness culture, organizational policies and laws, job characteristics and organizational status of education, development of organizational learning culture, development of participatory and teamwork culture, institutionalization of experience and expertise in the organization, career management, performance management, review and refine the laws and regulations, creating opportunities for use, promoting scientific interactions and promotion of the unit's training position, reducing job burnout, development of staff capabilities and creativity; increasing the effectiveness of organizational training and increasing organizational success). In axial coding stage, 25 sub categories were presented in the six main categories including causal conditions, core category (organizational factors affecting learning transfer), context conditions, interventional conditions, strategies and outcomes. The third stage of the qualitative analysis process is selective coding which identifies the relationships between different categories.

In the quantitative part, confirmatory factor analysis was used to validate the questionnaire derived from the grounded theory. Before confirmatory factor analysis, to determine the adequacy of sampling, the Kaiser Meyer Olkin (KMO) and Bartlett tests were investigated. The results of these tests are presented in Table 3.

**Table3:** The results of Kaiser Meyer Olkin and Bartlett's test

<b>Sampling adequacy index</b>	Kaiser Meyer Olkin	0.891
	Chi-Square	18002/217
<b>Bartlett's test</b>	Degrees of freedom	2775
	Significance level	0.000

According to Table 3, the KMO value is 0.891, which indicates that the sample size is suitable for confirmatory factor analysis. Also, the value of Bartlett's test is significant at the level of 0.001; therefore, the necessary conditions for performing factor analysis are provided.

In Table 4, the results of the first- order confirmatory factor analysis of each structure are presented separately for each of the components. The results showed that all items of each structure have a significant correlation with its components at 99% confidence level. In other words, the structural equation modeling showed that all subcomponents of each dimension have a significant factor load. To examine the second criterion of items reliability, the significance of factor loads obtained based on t-values (more than 1.96 at the level of 0.05 is significant). The results indicated that all questions were effective on the relevant variables.

**Table4:** Factor loads and t-values of each of the items of the research structures

Main Dimensions	Component	Items	Factor load	t-value
Core Category	Organizational support	Support of staff before, during and after training	0.76	14.93
		Motivating employees and taking action to eliminate the shortcomings and difficulties of transfer training	0.86	17.68
		Getting support from colleagues in applying education	0.64	11.94
	Competencies of managers	The commitment of managers to create a culture of learning transfer	0.81	16.46
		The use of participatory and transformative leadership styles	0.73	14.27
		Capabilities of academic leadership and possessing knowledge and management skills	0.79	16.72
	Climate of learning transfer	Valuable knowing learning and organizational training	0.78	14.96
		The existence of confidence and participatory climate among employees	0.82	16.01
		The existence of thrilling and challenging climate to learn	0.70	12.98
Causal conditions	Organizational structure	The dynamics and modernity of academic structures	0.61	10.79
		Delegation of decision making to professional staff and independence and freedom to act in the workplace	0.66	11.96
		Appointment of qualified and experienced staff as training manager	0.76	14.11
	Organizational capabilities	The professionalism of the university and the maturity of the processes and working procedures	0.86	17.79
		Existence of learning capacities at university	0.87	18.04
		Having the dimensions of learning organization	0.43	7.54
	Financial and physical resources	Allocated funds to training	0.64	11.94
		Provide the tools and technology required to apply education in practice	0.82	16.36
		Having adequate and expert human resource	0.88	18.18
Context conditions	knowledge sharing culture	The existence of coherent and sympathy culture at university	0.65	11.73
		A culture of sharing knowledge and new experiences with colleagues	0.79	15.27
		Encourage discussion and debate at university	0.73	13.73
	exaltation culture	The culture of perfectionism and professional growth at university	0.64	11.79
		Culture of dignity and rewards to employees	0.73	13.74
		Specialization development and staff awareness of their role in the university	0.72	13.50
	openness culture	Creating fluid thinking and enhancing intelligent behavior towards change	0.72	13.13
		Freedom of employees in experiencing and risk taking	0.80	14.81
		Increasing the permeability of university boundaries with its ecosystems	0.57	9.81
Intervening conditions		The existence of flexible and supportive policies for learning transfer	0.90	19.07



Main Dimensions	Component	Items	Factor load	t-value
Strategies	Organizational policies and laws	The existence of supportive laws and regulations for learning transfer	0.90	19.10
		Definition of learning transfer as part of university mission	0.59	10.85
	organizational status of education	The degree of participation of the education unit in university policies and decisions	0.78	15.57
		Recognition of the unit of training authority	0.82	16.77
		The Impact of training on hiring human resources	0.86	17.84
	job characteristics	Balanced workload to keep up with tasks and apply new knowledge	0.68	12.35
		The fit between the specialties and abilities of employees with the occupied profession	0.82	15.56
		Varied and challenging opportunities for using new knowledge and skills	0.77	14.38
	development of organizational learning culture	Strengthening the learner's organizational culture and the emphasis and support of continuous learning	0.63	11.41
		University accountability to enhance individual and organizational learning	0.75	14.21
		Give importance to educated and expert workforce by providing opportunities for learning enrichment	0.82	15.96
	development of participatory and teamwork culture	Participation of staff in university decision making and planning	0.68	12.50
		Participation of staff in activities with advisory approach	0.69	12.69
		Emphasizing group achievements and rewards instead of individual achievements and rewards	0.69	12.69
	institutionalization of experience and expertise in the organization	Sharing the experiences of universities and managers with regard to learning transfer strategies to the workplace	0.73	13.99
		Provide opportunities for exchanging experiences, ideas and skills among employees	0.86	17.24
		Strengthening the supportive climate that creates trust and knowledge sharing among employees	0.59	10.69
	career management	Relationship between training and promotion	0.83	17.13
		Developing promotion policies based on job competencies	0.85	17.54
		Designing employees' career path based on the transfer of learning to the workplace	0.76	15.11
	performance management	Establishing precise standards to measure employees' learning in the real workplace	0.70	13.49
		Considering the transfer of learning as a criterion for evaluating performance and providing feedback	0.75	14.86
		A fair payment system and adequate appreciation of performance	0.79	15.90
	review and refine the laws and regulations	Revision of the oriented quantity nature of the upgrade regulations	0.57	10.54
		The refinement of legal constraints and the removal of redundant, time consuming and inefficient administrative procedures	0.87	18.56

Main Dimensions	Component	Items	Factor load	t-value
Consequences	creating opportunities for use	Eliminating legal gaps and eliminating ways to circumvent laws	0.85	17.95
		Creating the opportunity to use learning in the real workplace	0.79	15.28
		Provide opportunities for employing earned competitive ability in the job	0.63	11.50
		Minimizing the gap between training and opportunities for using acquired skills	0.55	9.74
	promoting scientific interactions	improving communication between working groups and creating diverse learning opportunities among colleagues	0.88	18.01
		The formation of theorizing seats and congregational meetings	0.80	15.85
		Staff relationship with instructors of training courses in order to resolve possible problems	0.46	8.08
	promotion of the unit's training position	Get feedback from education units to formulate educational goals and strategies	0.73	13.01
		Training of specialist personnel for the implementation of organizational training	0.61	10.59
		The relationship of the training unit with the performance evaluation system	0.73	13.01
	reducing job burnout	Getting rid of routine and enjoyment of professional life	0.79	15.48
		Prevent employees from being indifference to learning and learning transfer	0.74	14.26
		Preventing the freezing thoughts of staff and improving the quality of working life	0.80	15.90
	development of staff capabilities and creativity	Trying to form employees' professional identity	0.80	15.76
		increase tendency to professionalism in the staff	0.80	15.81
	increasing the effectiveness of organizational training	Trying to do the tasks in a new way and reinforcing the spirit of creativity in individuals	0.73	13.89
		Increased return on investment in organizational training	0.80	15.82
		Maximizing the intra-organizational training capacity	0.79	15.52
	increasing organizational success	Evolution with regard to learning and training	0.61	10.96
		A strategy for achieving competitive advantage	0.58	9.99
		Reduce organization costs	0.72	12.98
		Providing higher quality services and the ability to respond the needs of higher education customers	0.57	9.83

In Table 5, the fit indices of the confirmatory factor analysis of each structure have been reported. According to the results of Table 5, the values of  $\chi^2/df$  and RMSEA are significant. Furthermore, goodness of fit index (GFI), adjusted goodness of fit index (AGFI), comparative fit index (CFI), normed fit index (NFI) and relative fit index (RFI) have values greater than 0.9. Therefore, the results showed that the data of this research have suitable fit with the factor structure of the components of each of the six dimensions and the first-order pattern of structures has acceptable fit.

**Table 5.** The fit indices of the confirmatory factor analysis of the main structures

Fit indices	$\chi^2/df$	GFI	AGFI	NFI	CFI	RFI	RMSEA
Acceptable Fitness	$\leq 3$	$0.9 >$	$0.9 >$	$0.9 >$	$\geq 0.9$	$\geq 0.9$	$0.1 <$
The calculated fit of core category	2.70	0.93	0.93	0.95	0.94	0.93	0.074
The calculated fit of causal conditions	2.78	0.90	0.91	0.93	0.95	0.92	0.076
The calculated fit of context conditions	2.91	0.88	0.89	0.92	0.92	0.91	0.079
The calculated fit of intervening conditions	2.90	0.89	0.89	0.92	0.93	0.90	0.079
The calculated fit of strategies	2.77	0.92	0.92	0.95	0.92	0.94	0.076
The calculated fit of consequences	2.68	0.91	0.91	0.94	0.93	0.97	0.074

In the following, the factor analysis of the learning transfer questionnaire has been investigated in general. The questionnaire consisted of six main structures (core phenomenon, causal conditions, context conditions, intervening conditions, strategies and consequences) which each of them included some components.

**Table 6:** Factor loads and t-values of each of the components

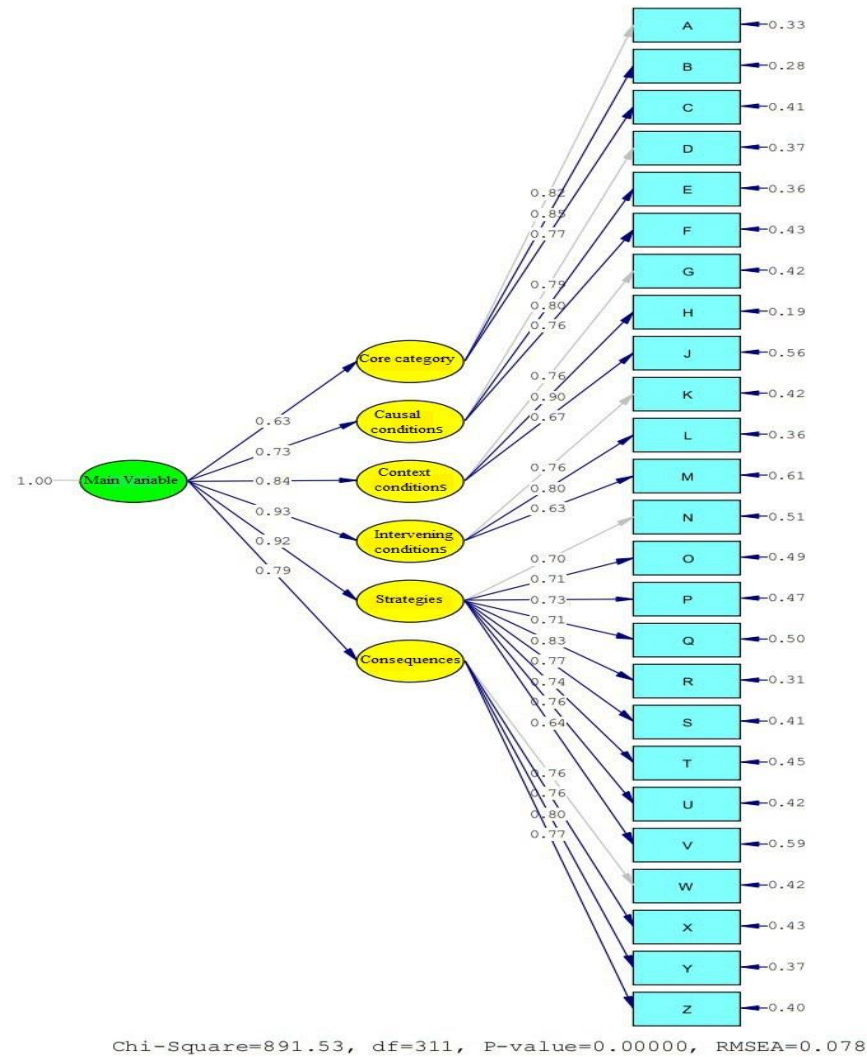
Main dimensions	Components	Factor load	t-value
Core category	Organizational support	0.79	16.70
	Competencies of managers	0.82	16.53
	Climate of learning transfer	0.82	16.43
Causal conditions	Organizational structure	0.82	16.69
	Organizational capabilities	0.78	15.37
	Financial and physical resources	0.75	14.52
Context conditions	Knowledge sharing culture	0.76	15.09
	Exaltation culture	0.91	19.65
	Openness culture	0.65	12.16
Intervening conditions	Organizational policies and laws	0.76	14.92
	Job characteristics	0.80	15.90
	Organizational status of education	0.62	11.47
Strategies	Development of organizational learning culture	0.70	13.66
	Development of participatory and teamwork culture	0.71	13.95
	Institutionalization of experience and expertise in the organization	0.73	14.50
	Performance management	0.70	13.91
	Career management	0.83	17.61
	Review and refine the laws and regulations	0.77	15.84
	Promoting scientific interactions	0.74	14.85
	Creating opportunities for use	0.77	15.69
	Promotion of the unit's training position	0.65	12.46
	Reducing job burnout	0.78	14.85
Consequences	Development of staff capabilities and creativity	0.76	14.96
	Increasing the effectiveness of organizational training	0.79	15.89
	Increasing organizational success	0.78	15.55

According to table 6 results, all the components of "organizational factors affecting learning transfer" variable have a significant correlation with their dimensions. In other words, the structural equation model indicates that all components have a significant factor load with their dimensions.

**Table 7:** The fit indices of the confirmatory factor analysis of learning transfer variable

Fit indices	$\chi^2/df$	GFI	AGFI	NFI	CFI	RFI	RMSEA
Acceptable Fitness	$3 \leq$	$0.9 >$	$0.9 >$	$0.9 >$	$\geq 0.9$	$0.9 \geq$	$0.1 <$
The calculated fit	2.64	0.93	0.93	0.95	0.94	0.96	0.073

Table 7 shows the fit indices of second-order confirmatory factor analysis of the main variable. The results showed that 6 main dimensions and their factors have the ability to explain the variable of learning transfer.

**Figure 1:** Measurement model of organizational factors affecting transfer of learning variable with standard coefficients

(A to Z are respectively, organizational support, competencies of managers, climate of learning transfer, organizational structure, organizational capabilities, financial and physical resources, knowledge sharing culture, exaltation culture, openness culture, organizational policies and laws, job characteristics, organizational status of education, development of organizational, learning culture, development of participatory and teamwork culture, institutionalization of experience and expertise in the organization, performance management, career management, review and refine the laws and regulations, promoting scientific interactions, creating opportunities for use, promotion of the unit's training position, reducing job

burnout, development of staff capabilities and creativity, increasing the effectiveness of organizational training and increasing organizational success)

## 5. Discussion

The purpose of this study was to design and validate the questionnaire of organizational factors affecting the transfer of learning to the workplace which carried out by mixed method of sequential exploratory design type. The first stage was carried out in the framework of qualitative approach and by using grounded theory based on systematic approach. The results of qualitative section represented 25 general categories including causal conditions, context conditions, interventional conditions, strategies and outcomes that were related to the core category "organizational factors affecting learning transfer" in the form of a paradigm model.

In the second stage (quantitative section), a questionnaire with 88 items was first designed based on the results of the qualitative section. In a preliminary study, content validity of the designed questionnaire, was investigated by 11 specialists. Based on received feedbacks and CVR results, the number of questions was reduced to 75 items. The final version of the questionnaire was distributed among 309 employees of the Islamic Azad University of the West of Iran. The validity of the questionnaire was confirmed by the experts and its reliability was calculated by Cronbach's alpha (0.873). Confirmatory factor analysis was used to estimate the validity of the designed tool. The results of the first order factor analysis showed proper fit and favorable factors for the relationship between each item and the components. Also, the results of second order factor analysis showed that 25 components had sufficient factor load to predict 6 main dimensions, and the main dimensions had a sufficient load factor to explain the variable of organizational factors affecting learning transfer. Furthermore, the values of  $\chi^2/df$  (2.64) and RMSEA (0.073) were significant and goodness of fit index (GFI=0.93); adjusted goodness of fit index (AGFI=0.93); comparative fit index (CFI=0.94), normed fit index (NFI=0.95) and relative fit index (RFI=0.96) had values greater than 0.9. Therefore, it can be concluded that the researcher-made questionnaire had a desirable fit.

The results of this study showed that organizational factors, especially organizational culture, have an important place in learning transfer due to their role as facilitator and stimulator. Therefore, designed tools can be used to study the status of learning transfer at Islamic Azad universities and other universities and organizations.

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