



Faculty Development through Training Effectiveness: Role of Training Contents, Social Support and Instrumentality

Muhammad Awais BHATTI¹, Mohammed Ali ALDOSSARY²

ARTICLE INFO

ABSTRACT

Article History:

Received: 10 August 2021

Received in revised form: 17 October 2021

Accepted: 10 November 2021

DOI: 10.14689/ejer.2021.96.11

Keywords

Training effectiveness, Social Support, Training Contents, Instrumentality

Purpose. Faculty development is important for educational institutions to effectively manage learning process and achieve desired goals. Therefore, educational institutions offer various types of training programs to enhance skills, knowledge and abilities of their faculty members but are often less concerned about the effectiveness of training programs. Therefore, the purpose of this study was to examine the role of training contents, social support and instrumentality in ensuring the training effectiveness. **Methodology.** This study used quantitative research design with deductive reasoning and explanatory survey research with a

cross-sectional approach to explore, analyze and explain the effect of training effectiveness and effects of training contents, social support and instrumentality on transfer of training. Data was collected from 230 faculty members who had recently attended faculty development training programs. **Findings.** Results show that training contents and instrumentality are critical for training effectiveness whereas social support shows a weak relationship with training effectiveness. Findings of this study also explain that intrinsic rewards have stronger positive effects on training transfer in contrast with extrinsic rewards. **Implications to Research and Practice.** Findings of this study would be helpful for trainers, educators and policymakers in the educational sector to design training programs considering the training contents and instrumentality. There is no research in past with focus on faculty development through training effectiveness specifically focusing on training contents, social support and instrumentality.

© 2021 Ani Publishing Ltd. All rights reserved.

Introduction

To maximize the learning process and effective implementation of the teaching

¹ Corresponding Author: Associate Professor, Department of Management, College of Business, King Faisal University, Al-Ahsa 31982, SAUDI ARABIA. E-mail: mbhatti@kfu.edu.sa, ORCID: [0000-0003-4485-1168](https://orcid.org/0000-0003-4485-1168)

² Assistant Professor, Department of Management, College of Business, King Faisal University, Al-Ahsa -31982, SAUDI ARABIA. e-mail: maaldossary@kfu.edu.sa, ORCID ID: [0000-0001-5464-7270](https://orcid.org/0000-0001-5464-7270)

techniques, faculty members should be equipped with the necessary skills, knowledge and abilities. In this regard, educators and policymakers always provide best possible resources to enhance and develop their faculty members. Since faculty members play vital role in enhancing graduates skills level, educators and policymakers should train faculty members to enhance skills level among graduates. Therefore, educators and policymakers offer various training programs to faculty members. OECD (2018) pointed out that major challenge for higher educational institutions was to equip graduates with critical and problem solving skills important in 21st century.

In order to face this challenge, educators and policymakers should encourage faculty members to move from conventional teacher-centered methods to learner-centered approach. In this regard, Potter and Kustra (2011) suggested that faculty members should be trained to use modern teaching methods and enable them to equip graduates with desired skills but these objectives cannot be achieved with effective training programs. Higher educational institutions (HEIs) offer various faculty development training programs such as mentoring (Cordie et al., 2020), lesson studies (Herva, 2021), Universal Design for learning (UDL) (Jingrong and Mary, 2021) but very few have shown any concern for the effectiveness of training programs. Bhatti et al., (2013) suggested that effective training programs are required for optimum results.

Ross et al., (2021) have argued that limited research has been done to understand the effectiveness of faculty development training programs which has caused a great dearth of skills required by faculty members, in the production of well skilled graduates in universities and Higher education institutions. In addition, Stolzenberg et al., (2019) too had highlighted that formal teacher training could be helpful for faculty to better understand what skills are important in 21st century and what teaching strategies should be used to equip graduates with such attributes that would help them in their career building.

There is also a lack of empirical studies on evaluating effectiveness of training for faculty development specifically focusing on training contents, social support and instrumentality. It seems less likely that the literature has provided any uniform recommendation for the effectiveness of training through these variables chosen for the current study. Therefore, the aim of this study was to examine whether faculty development could be envisaged in a university environment based on training contents, social support and instrumentality.

This current research, therefore, focuses on attempting answers to the following research questions during the conduct of training programs for faculty development:

1. To what extent, training contents can enhance training transfer?
2. Can social support in higher educational institutes maximize training transfer?
3. How can instrumentality (intrinsic and extrinsic rewards) encourage faculty members to ensure transfer of the learned skills at workplace?

Figure 1 presents the theoretical framework of this study.

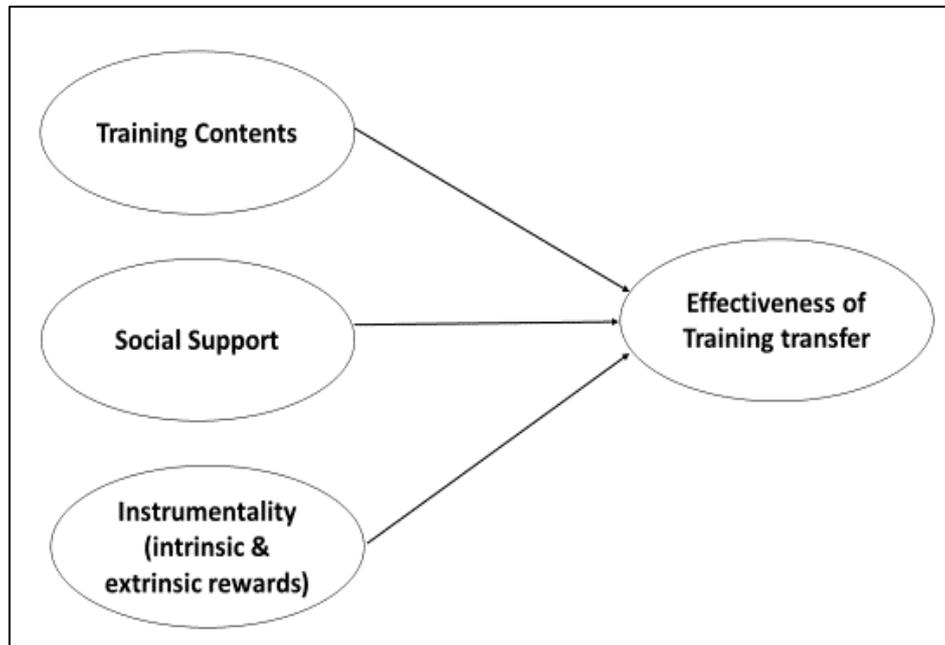


Figure 1. Theoretical framework of the study.

Literature Review and Hypotheses formation

In order to better equip faculty members with necessary knowledge, skills and abilities, effectiveness of training programs is vital. Past researchers, Baldwin and Ford (1988), Bhatti et al., (2013), Holton et al., (2007), and Kirkpatrick (1976) have highlighted various methods to evaluate training effectiveness. One of the common components in all these training evaluation methods is transfer of training. Bhatti et al., (2013) argued that transfer of training was the most essential elements for accomplishing training effectiveness. It was further emphasized that transfer of training referred to a process in which trainee applied knowledge and skills at workplace which s/he learned during training. In addition, Awais and Sharan (2010) pointed out that employees need to apply the learned knowledge and skills at workplace in order to improve their job performance which will ultimately influence organizational job performance.

Past researchers have also highlighted various other factors that influence transfer of training such as training contents, social support, instrumentality but the influence of these factors was examined in different settings such as in banking sector, in manufacturing sector, service industry but limited research has been done to understand the role of these factors in the educational setting specifically in the context of faculty development training programs. Therefore, the purpose of this study was to examine the effects of training contents, social support and instrumentality on training effectiveness of faculty

development programs.

Training Transfer as an Element of Training Effectiveness

Training transfer is one of the important component of training effectiveness. Researchers have suggested that in order for training to be effective, trainees should apply learned skills at workplace which will be helpful to improve their job performance. Taatgen (2021) suggested that training transfer helps trainees to improve job performance but there are multiple factors which influence level of transfer. In this regards, Kirkpatrick (1976) argued that for higher level of training transfer, trainees should exhibit positive reaction about training program. Furthermore, Holton (2007) and Bhatti et al., (2013) suggested that in different training evaluation models, training transfer was the most critical element which can be used to predict overall effectiveness of the training program. Gil et al., (2021) pointed out that needs- analysis and training design predict high training transfer. Therefore, trainers should focus on need assessment and training design to achieve optimal level of training transfer. In this regard, Awais and Sharan (2010) suggested that researchers should explore the role of different factors in training transfer.

Training Contents

Taatgen (2021) has highlighted that for training to be effectively the transferred training contents should be identical with actual job task. In addition, Velada et al., (2007) suggested that for higher level of training transfer, trainers should ensure that training contents are similar with actual job task. These similarities help trainees to visualize related training activities with actual job task which ultimately help trainees to apply the learned skills and knowledge at workplace. In addition, Valdivia et al., (2021) explained that training content should be designed in a way that reflect job task of the employees. This will be helpful for trainee to transfer learned skills at workplace. Therefore, it is concluded that, for higher training, transfer of training contents should be similar with trainees' job task or in other words it can be hypothesized that when training contents are similar with job task, they positively influence training transfer. The hypothesis is stated as

H1: *Training contents in the training programs aimed at faculty development, may enhance training transfer*

Social Support:

Social support is another important factor that influences levels of training transfer. Generally, social support consists of supervisor support, peer support and top management support. Researchers have pointed out that for trainees to apply learned skills and knowledge at workplace, necessary social support is vital. Holton (2000) points out that without social support trainees may be reluctant to apply learned skills and knowledge at workplace. In addition, Bhatti et al., (2013) found that supervisor support play more important role in enhancing training transfer as compares to peer support. Although past researchers have contradictory findings about the role of peer and supervisor support in enhancing training transfer but still majority of researchers have agreement on important

role of social support in enhancing training transfer. Furthermore, Salamon et al., (2021) highlighted that social support helps trainees to effectively transfer learned skills at workplace. Therefore, based on above arguments, this study hypothesized that

H2: *Social support in higher educational institutions could maximize training transfer.*

Instrumentality

The concept of instrumentality explains that individuals have different needs and feel motivated to perform certain task based on different expectations. Bhatti et al., (2013) explains that rewards can be categorized into two major categories namely intrinsic rewards such as way of performing certain tasks and extrinsic rewards such as promotion, salary increment, etc. These rewards work as driving force behind individuals' actions and initiatives. However, Quratulain (2021) found that instrumentality positively affects a trainee's implementation behavior. In addition, Tharenou (2001) argued that individuals may expect different types of rewards and perform given task accordingly. For example, young people may be inclined towards extrinsic rewards and apply learned skills at workplace considering promotion or salary increment because they believe that once they applied learned skills at work place their performance level would increase which will be helpful to receive extrinsic rewards. In contrast, old employees or managers may be inclined towards intrinsic rewards and apply learned skills at workplace because they may believe that they will get desired rewards by transferring learned skills at workplace. Based on these arguments, this study hypothesize that

H3: *Instrumentality (intrinsic and extrinsic rewards) may encourage intellectual employees like faculty members to transfer the learned skills at workplace.*

Methodology

Research Design

This study is quantitative in nature with deductive reasoning. Hair et al., (2007) argued that deductive reasoning helps researchers to understand the nature of relationships between endogenous and exogenous variables. Being a quantitative research study, it focused on numerical data (numbers), which is then analyzed using statistical methods. This research is an explanatory survey research with a cross-sectional approach to explore, analyze and explain the effect of training effectiveness and effects of training contents, social support and instrumentality on transfer of training offered in faculty development programs in universities and HEIs. The main aim of these FDPs was to enhance faculty skills, knowledge and abilities to enable them to successfully equip the graduates with target skills. The purpose of faculty development training program was also to help faculty members to understand varieties of teaching strategies, and use of online learning aids, technology etc. in teaching. The scales were arranged using a Likert scale with five choices from 1 (strongly disagree) to 5 (strongly agree).

Sampling and research procedure

Simple random sampling method was used to collect the data from faculty members who had recently attended faculty development training programs conducted by King Faisal University (KFU). A total of 250 questionnaires were sent to faculty members with cover letter explaining the purpose of data collection. After 2 weeks, a soft reminder was sent to return the completed questionnaires. The whole process of data collection took one month. A total of 238 questionnaires were returned in which 8 questionnaires were discarded being incomplete and containing illogical responses. Finally, 230 questionnaires were used in data analysis.

Instruments of data collection

A questionnaire containing multiple close ended questions was used to collect the data. The questionnaire was adopted from previous studies that had used similar constructs. The questionnaire consisted of items related to measuring training contents, level and type of social support, and types of rewards (intrinsic and extrinsic) and tendency to transfer the learned skills at workplace.

Data analysis

SPSS version 16 was used to analyze the data. Before testing the nature of relationships among variables, reliability test was run to check the scales reliability and also descriptive statistics and correlation was performed. Descriptive statistics were obtained by calculating each item's mean, standard deviation, and category descriptions (Gunawan, 2017). A normality test was carried out to determine whether the data was normally distributed. The normality test in this study used the Kolmogorov-Smirnov one-sample test with a significance level greater than 5% or $p > 0.05$. The test results identified that the significance value of the Kolmogorov Smirnov test was greater than 0.05; so it could be inferred that the regression model residuals were normally distributed. The Durbin-Watson coefficient was also found of 2.14 value which was between the acceptable limits of 1.5 to 2.5.

The hypothesis testing applied the multiple linear regression analysis to measure the relationship between the variables of training effectiveness and effects of training contents, social support and instrumentality on transfer of training offered in faculty development programs in universities and HEIs. The hypothesis testing used the multiple linear regression analysis to determine the determinant coefficient and reveal the effect of training contents, social support and instrumentality on transfer of training.

Results

This section reports reliability of the scales, descriptive and correlation analysis, t-test to evaluate the differences and regression analysis. Based on the test results of the questionnaire of 230 respondents, it was found that the Cronbach alpha value for each variable was greater than 0.6 (Table 1), so the questionnaire reliability requirements were met and the statement items on all variables were reliable. According to Hair *et al.*, (2006) construct reliability (Cronbach Alpha) above 0.6 explains that the constructs are reliable. It

also suggested that the questionnaire items had got a high validity. Having convinced of their validity and reliability, the questionnaire in this study was applied and distributed to the respondents to collect the data.

Table 1

Reliability (Cronbach alpha value)

Variables	Reliability
Training Transfer	0.647
Training Contents	0.714
Social Support	0.697
Instrumentality	0.879

Notes: * $\alpha > 0.6$ (Hair et al., 2006)

Table 2 presents means, SD and correlations among variables. This suggests that all variables are significantly correlated to each other. The data suggests very meaningful correlation between all variables.

Table 2

Descriptive Statistics and Correlations

Variables	Mean	SD	1	2	3
1. Training Transfer	3.18	0.37			
2. Training Contents	2.57	0.29	0.27		
3. Social Support	2.04	0.19	0.21	0.22	
4. Instrumentality	3.41	0.40	0.37	0.32	0.39

Notes: $p < 0.05$ (Hair et al., 2006)

Likewise, regression results in Table 3 showing a correlation with ($p < 0.001$; Hair et al., 2006) explain the relationship among independent variables (Training contents, social support and instrumentality) and training transfer as statistically significant.

Table 3

Multiple Regressions for Psychological Attributes

Independent Variables	Beta	t-value
Training Transfer	0.67	6.15
Training Contents	0.78	5.88
Social Support	0.14	1.47
Instrumentality	0.81	8.47

The regression results in Table 4 show 52 percent variation (R square 0.52) in training

transfer, which could be due to the training contents, social support and instrumentality (intrinsic and extrinsic rewards). In addition, a bell shape histogram and P-P plots fulfilled the normality requirement of the sample. The Durbin-Watson coefficient of 2.14 was between the acceptable limits of 1.5 to 2.5.

Table 4

Coefficient of Determination

Model	F-value	R Square	Adjusted R Square	Durbin Watson
1	58.1	0.52***	0.58***	2.14

*** $p < 0.01$; t -values > 1.96 (Hair et al., 2006)

- a. Predictor: (Constant), Training contents, social support and instrumentality
- b. Dependent Variable: training transfer)

The results of regression analysis also reported that tested relationships were significant at $p < 0.001$ (Hair et al., 2006) and suggested that tested hypothesis should be accepted for H1 and H3 but should be rejected for H2. The beta value (standardized coefficient) of training contents ($\beta = 0.78$; t -value=5.88) showed that the training contents positively influenced training transfer of faculty members. In addition, the results reveal that social support ($\beta = 0.14$ t -value=1.47) did not influence training transfer tendency of faculty members. However, instrumentality (intrinsic rewards and extrinsic rewards ($\beta = 0.81$ t -value=8.47) positively influenced training transfer tendency of faculty members. Therefore, hypothesis 1 and 3 were accepted but hypothesis 2 was rejected.

Discussion

Higher educational institutions (HEIs) have been focusing on faculty development through multiple means and offer a variety of faculty development training programs (FDTPs) to enhance the knowledge, skills and abilities of the faculty members. These FDTPs aim at providing training to faculty as to how to equip the graduates with the targeted skills and attain the learning outcomes. However, all these initiatives and efforts become fruitless when training programs are proven ineffective and faculty members fail to transfer the required learned skills in their graduates. This suggests that teaching and learning process cannot be effective unless faculty members are fully equipped with effective teaching strategies. Undoubtedly, effectiveness of FDTPs is vital and researchers have been continuously focusing to understand factors that affect training programs efficiency. In this regard, this study examined the relationship among training contents, social support and instrumentality (intrinsic rewards and extrinsic rewards) with one of the most important components of training effectiveness, which is training transfer.

Findings of this study suggest that training contents are critical for higher level of training transfer due to the fact that when faculty members observe training contents are similar to their actual educational setting, they feel confident in transferring the learned skills and devise such teaching/learning strategies that are compatible with the training

contents. In contrast, if training contents are not similar to their educational setting, training transfer will decrease and all resources and efforts allocated by the management will be wasted. For instance, if training program is about using modern technologies or application of online methods for teaching and learning, and if these technologies are not available in the real educational setting, the training transfer will slow down. It is therefore always advisable that training contents should be similar with actual educational setting in order to maximize the rate of transfer. Bhatti et al. (2013) observed that when trainees found training contents similar to real educational setting, they would show more confidence and actively participate in the training activities. They would believe that when training contents were similar to their job, it would be helpful to perform their job tasks and ultimately increase their job performance. In addition, Hervas (2021) suggested that lesson study could be used for faculty development in higher education whereas Jingrong and Rice (2021) suggested that universal design for learning (UDL) might be better strategy for faculty development.

With reference to social support, findings of this study reveal that social support may not be useful in ensuring the effectiveness of training programs for faculty members. These findings are surprising but similar with past research findings in which researchers found no significant relationship between social support including supervisor support, peer support and top management support. Although there are many students who reported that peer support has stronger relationship with training effectiveness as compared to supervisor support. This study did not segregate social support factor into sub categories but used social support as single factor which is a combination of supervisor support, peer support and top management support but still results show that social support did not influence training transfer which is one of the important elements of training effectiveness. The possible reason behind these findings might be strong beliefs and personality of the faculty members. Moreover, they may not need any motivation or support to apply learned skills since faculty members are usually at higher intellectual level, and they act they believe in. Thus, social support may not change their intellectual mindset.

Lastly, findings of this study suggest that instrumentality (intrinsic and extrinsic rewards) have positive influence on the effectiveness of training program, more specifically on the training transfer. These findings are partially supported by the past research in which researchers found that instrumentality positively influenced training transfer. The reason behind partial support may be due to the fact that there are studies that have equally found that both intrinsic and extrinsic rewards make a strong influence on training transfer. The possible reason behind these findings could be the target respondents or specific setting in which studies were conducted. For instance, where respondents were general employees or young respondents, they were seen more inclined toward extrinsic rewards since they were at the initial stage and due to financial and career instability, they were forced them to prefer extrinsic rewards. However, where respondents enjoyed stable position in their job and were at a mature stage of their career, they were more inclined towards intrinsic rewards. This could be the reason behind faculty members too who are more inclined towards intrinsic rewards rather than extrinsic. Moreover, they are involved in intellectual work and are at a stable position of their career.

Conclusion

Researchers have suggested different programs and strategies for faculty development, there is still very limited research available on the effectiveness of training programs. This study provided a complete insight about the effectiveness of training programs and suggested how training programs can be effective with relation to training contents, social support and instrumentality (intrinsic and extrinsic rewards). positively influence effectiveness of training programs for faculty members with least or no significant influence of social support on training transfer. These findings are partially supported by past researchers due to different setting of this study but similar with some setting such as banking sector.

Findings of this study have various implications in theory and practice. Theoretically findings of this study strengthen the body of knowledge by explaining the nature of relationship among training content, social support and instrumentality and support the training evaluation models of past researchers such as Krikpatrick (1976), Holton (1996) and Bhatti et al., (2013). In practical terms, it will inspire trainers and educators to focus on contents of the training program. If training contents are similar with actual job, the transfer rate will be higher. Human resource professionals would also consider offering intrinsic or extrinsic rewards after training since findings show that intrinsic rewards influence training transfer very strongly. There will be implication that trainees would believe that training transfer would lead to some sort of rewards, and they would feel more motivated to apply learned skills at workplace. They would believe that it will help them to improve their job performance and ultimately to rewards. Important consideration is that these rewards should be offered after the need assessment. For instance, if trainee expectation is to receive extrinsic rewards such as promotion or salary increment and intrinsic rewards are offered such as encouragement or appreciation, the rate of transfer will be low and vice versa. Therefore, selection of rewards should be based on trainee needs.

Limitations and Future Research Directions

An important limitation of this study was related to social support as findings suggest that there had been no significant relationship between social support and training transfer. A few past studies have contradictory findings about role of social support in training transfer. They have reported that supervisor support influences training transfer but peer support positively influences training transfer. In contrast, other studies found that top management support would positively influence training transfer but no significant relationship was seen between peer support and training transfer. This study used social support as combined measurement scale and findings showed that there was no significant relationship between social support and training transfer. Future studies should re-evaluate the nature and items of social support variable to better understand what exactly social support could achieve.

The second limitation of this study was that it examined only the relationship between training contents, social support and instrumentality on training transfer whereas there are many other individual, environmental and situational variables which should be examined

in future to better understand the nature of different variables and their effects on training transfer in the higher educational institutional. Such studies may set specifically in the context of faculty development training programs. Faculty members in this study belonged to diverse cultures and the cultural factor was ignored. Future studies should explore cultural differences and the role of these variables in the process of training transfer. This study also focused on one element of training evaluation model, that is, "training transfer". Future studies should explore the effects of different factors such as individual factors, situational factors, environmental factors on other elements of training evaluation models like trainee reaction, learning and ROI. Further investigation of these factors would be helpful to better understand the overall view of training evaluation models.

Acknowledgement

This work was supported by the Deanship of Scientific Research, King Faisal University, Saudi Arabia, through the Research Grant Program Nasher, under Grant 216100.

Reference

- Awais M. and Sharan K (2010) "The role of individual and training design factors on training transfer" *Journal of European Industrial Training*, 34 (7) 656-72
- Bhatti M.A, Battour M.M., Sundram V.P.K and Othman (2013) "Transfer of training: does it truly happen? An examination of support, instrumentality, retention, and learner readiness on the transfer motivation and transfer of training" *European Journal of Training and Development*, 37 (3) 273-297
- Baldwin, T.T. and Ford, J. (1988) "Transfer of training: a review and directions for future research" *Personal Psychology*, 41 (1). 63-105
- Cordie L.A., Tabitha B., Lin X., Wooten M.C (2020) "Co-Teaching in Higher Education: Mentoring as faculty development" *International journal of teaching and learning in higher education*, 32 (1), 149-158
- Gil, A.J., Mataveli, M. and Garcia-Alcaraz, J.L. (2021), "Towards an analysis of the transfer of training: empirical evidence from schools in Spain", *European Journal of Training and Development*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/EJTD-01-2021-0008>
- Hervas G. (2021) "Lesson study as a faculty development initiative in higher education: A systematic review" *AERA open*, 7 (1). 1-19
- Holton, E.F., Bates, R. and Kauffeld, S. (2007), "Examining the factor structure and predictive ability of the German-version of the learning transfer system inventory" *Journal of European Industrial Training*, 31 (3), 195-211
- Holton, E.F. III, Bates, R.A., and Tuona, W.E. (2000) "Development of generalized learning transfer system inventory" *Human resource development quarterly*, 11 (4) 333-360
- Jingrong Xie and Mary F. Rice (2021) "Professional and social investment in universal design for learning in higher education: insights from a faculty development program" *Journal of further and higher education*, 45 (7). 886-900

- Kirkpatrick, D. (1976) "Evaluation of training" in Craig, R.L. (Ed), Training and Development Handbook, 2nd ed., McGraw Hill, New York, NY.
- OECD (2018) "The future of education and skills: Education 2030. Retrieved from
- Quratulain, S., Khan, A. K., Sabharwal, M., & Javed, B. (2021). Effect of self-efficacy and instrumentality beliefs on training implementation behaviors: Testing the moderating effect of organizational climate. *Review of Public Personnel Administration*, 41(2), 250-273.
- Ross J. Benbow, Changhee Lee & Matthew T. Hora (2021) "Exploring college faculty development in 21st century skills instruction: an analysis of teaching focused personal networks" *Journal of further and higher education*, 45 (6) 818-835
- Salamon, J., Blume, B. D., Orosz, G., & Nagy, T. (2021). The interplay between the level of voluntary participation and supervisor support on trainee motivation and transfer. *Human Resource Development Quarterly*.
- Stolzenberg, E.B., M. Eagan, H. Zimmerman, J. Berdan Lozano, N. Cesar-Davis, M. Aragon, and C. Rios-Aguilar. (2019) "Undergraduate teaching faculty: The HERI faculty survey 2016-2017. Los Angeles: Higher Education Research Institute.
- Taatgen N.A. (2021) Theoretical Models of Training and Transfer Effects. In: Strobach T., Karbach J. (eds) *Cognitive Training*. Springer, Cham.
- Valdivia-Vizarreta, P., Rodrigo-Moriche, M. P., Sánchez-Cabrero, R., Villaseñor-Palma, K., & Moreno-Rodríguez, V. (2021). Main Cross-Cutting Training Contents of LEISURE and Free Time Schools: Acceptance of Groups Involved in the Leisure Time Instructor Courses. *Sustainability*, 13(16), 8959.
- Velada, T., Caetano, A., Michel, J.W., Lyons, B.D. and Kavanagh, M.J. (2007) "The effects of training design, individual characteristics and work environment on transfer of training" *international journal of training and development*, 11 (4), 282-294