



University of Hormozgan



Educational and Behavioral
Research Center

Validation a Model of Learning Facilitators Club Related to Professional Training Development in Employees of Hormozgan Education Department

Ahad Ameri¹, Mohammadnoor Rahmani², Leila Khajehpour³

1. PhD Student, Department of Curriculum, Qeshm Branch, Islamic Azad University, Qeshm, Iran

2. Department of Education, Bandar Abbas Branch, Islamic Azad University, Bandar Abbas, Iran,

Mohamadoor29@gmail.com

3. Assistant Professor, Department of Educational Science and Psychology, Qeshm Branch, Islamic Azad University, Qeshm, Iran

Article Info

Article type:

Research Article

Article history:

Received 28 Mar. 2023

Received in revised form 02

Sep. 2023

Accepted 11 Nov. 2023

Published online 01 Mar. 2024

Keywords:

Learning facilitators,
Professional training,
Professional development,
Education,
Validation study

ABSTRACT

Objective: Facilitating learning serves as one of the mechanisms for organizational development within various organizations. With this in mind, the present study aimed to validate the model of the learning facilitators' club in relation to the professional training and development of employees within the Education Department of Hormozgan province.

Methods: The research approach employed was descriptive, and the statistical population consisted of education employees from Hormozgan province. A sample of 30 individuals was selected using the accessible sampling method. Data was collected through a researcher-made questionnaire, which was deemed valid by experts. Data analysis was conducted using the one sample T test.

Results: The findings revealed that the model of the club, pertaining to professional training and development of learning facilitators, was significantly approved and agreed upon by experts and scholars. Based on the findings, the model showcased significant relevance to the research subject, applicability, relationships between its elements, comprehensiveness, comprehensibility, innovation, and widespread use.

Conclusions: Therefore, according to experts, the model of the Club of Learning Facilitators, which focuses on the professional training and development of the Education Department in Hormozgan Province, attains a high level of favorability.

Cite this article: Ameri, A., Rahmani, M. & Khajehpour, L. (2024). Validation a model of learning facilitators club related to professional training development in employees of Hormozgan education department. *Iranian Journal of Educational Research*, 3 (1), 13-26.

DOI: <https://doi.org/10.22034/3.1.13>



© The Author(s).

Publisher: University of Hormozgan.

DOI: <https://doi.org/10.22034/3.1.13>

Introduction

Education is one of the institutions that exert influence upon the process of human existence, with the aim of comprehensively nurturing individuals in a balanced and equitable manner, in order to facilitate their holistic development (Mehrmoammadi et al., 2019). Education serves as the cornerstone of sustainable human advancement and is recognized as the primary instrument for achieving developmental objectives (Saljegha and Safari, 2018). Educational systems constitute the principal pillar of societal transformations and are acknowledged as the primary catalyst for enhancing human capital (Harris and Sass, 2021). Conversely, in contemporary times, training is regarded as one of the means by which organizations can develop their human resources. Every organization necessitates individuals who possess both training and experience to fulfill their respective missions. Cultivating a cadre of exceptional and proficient individuals, commonly known as human resource development, is an indispensable requirement for organizations to thrive and progress within the dynamic milieu of today's world. Consequently, training is regarded as a pivotal responsibility of human resource management and is perpetually considered a significant element in the formulation of development plans or organizational changes.

One of the paramount concerns within the realm of education and training, considering the breadth of the human resources community, is the reinforcement of human resources, namely the augmentation of knowledge, skills, abilities, and motivations of employees within an organization. This advancement is only feasible within the context of professional development and the acquisition of professional expertise (Hemtejad et al., 2017), since learning occurs when we modify or critically reflect upon our existing knowledge (Arbabian and Qadri, 2019). Learning is an intricate process influenced by numerous variables, each of which mutually interacts with the others (Tiley, 1992). Furthermore, the performance of employees plays a pivotal role in the organizational success trajectory (Ahmadi et al., 2017). Professional development constitutes one of the most crucial topics within the field of human resource management, resulting in the emergence of various levels of professional competence among employees (Kamerai et al., 2019). Professional development assumes critical significance in the life of any organization as it equips its human resources with the ability to navigate the changing currents of globalization (Antsi Nasiro et al., 2020). According to Darling Hammond et al. (2017), effective professional development is defined as enhancing performance and learning outcomes. This encompasses

focusing on pedagogical strategies to facilitate learning within the classroom context, fostering collaborative sharing of ideas, and engaging in joint learning endeavors. Moreover, Sher and O'Reilly (2009) delineate professional development as encompassing immediate outcomes pertaining to knowledge and beliefs, intermediate outcomes associated with changes in instructional practices, and long-term outcomes concerning improvements in learner achievement. Professional development, in a general sense, pertains to the growth and advancement of an individual within their professional capacity. Specifically, it encompasses the steady accumulation of experience and the continuous monitoring of educational pursuits, resulting in the attainment of professional growth (Fazalali, 2019). Moreover, the identification of specific content areas holds significant importance in enhancing the effectiveness of a dedicated professional development program (Paolucci et al., 2021). Lux-Horsley et al. (2009) posit that the design of a comprehensive professional development program, incorporating successful strategies, is imperative for achieving the ultimate objective.

The research conducted by Wetzel et al. (2019) and Plouger et al. (2019) in the realm of professional development illuminates' various strategies employed within professional development programs. Furthermore, the findings of Van Schaik et al. (2019), Akiba et al. (2019), Richter et al. (2019), and Thomson et al. (2019) demonstrate the correlation between professionalism and the development of learning. To evaluate the learning outcomes of professional development, it is recommended to examine the specific attributes of professional development that lead to effective learning. The research findings of McFadden and Williams (2020), El and Major (2019), and Koponen et al. (2019) underscore the significance of knowledge, skills, and attitudes as crucial characteristics in the realm of learning. Additionally, the research conducted by Ahmed Zaki Eslami et al. (2022) indicates that a more collaborative approach and the utilization of university learning environments are integral to the professional development process. Future studies should focus on the development of professional development programs that incorporate collaborative practices and leverage university learning environments to implement novel educational strategies. However, it is currently lacking operational tools that facilitate the evaluation of professional development within learning communities (Javorsky, 2003).

The findings of the research conducted by Antsi Nasiro and colleagues (2020) as well as Asio and Jimenez (2020) revealed that colleges of education are not fully capitalizing on the potential benefits of continuous professional development programs due to significant obstacles such as the absence of a systematic and comprehensive analysis of educational needs and inadequate interaction between the educational institution and the organization seeking education. To address this issue, the training provider in this study recommended that the continuous professional development program be linked to a needs analysis and the integration of knowledge into everyday practice.

In light of this, the professional development of education staff is a comprehensive, focused, and supportive approach designed to foster the growth of education staff. Within this framework, learning facilitators play a crucial role as facilitation encompasses a range of methods and skills that facilitate the process of making tasks easier, and a facilitator is an individual who aids in this process. By enhancing interaction and participation among learners and designing an effective pathway, the facilitator promotes the teaching-learning process. Their role is to contribute to the group's effectiveness by enhancing its processes and structure. Consequently, the successful and effective implementation of professional and efficient training for employees is a fundamental challenge that necessitates a set of competencies, skills, abilities, and unique attributes. In this context, achieving success in the realm of educational improvement requires training for professional development and the enhancement of knowledge and skills. Nowadays, possessing professional qualifications in a specialized field is a fundamental requirement. Recognizing and evaluating human resources are imperative for the development of contemporary organizations, and this evaluation necessitates a reliable model that identifies shortcomings by aligning the current situation with said model. With this knowledge, it becomes feasible to establish a program aimed at addressing these deficiencies. Taking a step towards rectifying these shortcomings, the present study sought to design a special learning facilitators club for the training and professional development of employees within the Education Department of Hormozgan province and validate its effectiveness among the employees.

Materials and Methods

The current study was conducted in a descriptive manner with the objective of validating the model. The internal validation test of the model aims to incorporate expert opinions and make modifications and improvements to the model. To achieve this, a group of experts was engaged in validating the model. Initially, the proposed model's formal validity was assessed by examining the fit and coherence of its components, as well as the model's comprehensibility, the ambiguity of its terms, and any insufficiency in the meanings of its words. The supervisors and advisors provided their opinions, which were used to modify the model accordingly. Subsequently, the initial draft of the model, along with a model validation questionnaire, was distributed to professors in the field of education, educational management specialists, and human resource management specialists. The purpose was to assess the adequacy of the model's components and establish an organized process. The model validation questionnaire was adapted from Gayang's research (2016) and tailored to suit the current study. This questionnaire evaluates the validity, applicability, coherence, comprehensiveness, comprehensibility, innovation, and acceptability of the model. These indicators are presented in Table 1. Additionally, to ensure the content validity, the experts were asked to provide their feedback in writing through an open-ended question. Based on their responses, the content validity of the questionnaire was confirmed.

Table 1. Internal validation indicators of the model of the club of learning facilitators

Row	Indicator	Question
1	Validity	To what extent are the process and components mentioned in the model related to the subject of the research?
2	applicability	To what extent is this model useful for the education department of Hormozgan province?
3	coherence	How appropriate are the relationships drawn between the pattern elements?
4	comprehensiveness	How comprehensive is this pattern?
5	perceptibility	How simple is this pattern to understand?
6	Innovation	To what extent has innovation been observed in the model?
7	acceptability	To what extent do you suggest that designers of learning environments use this model?

The group of individuals chosen for the internal validation of the proposed model comprised of professors in the field of education, experts in educational management, and specialists in human resources who possessed knowledge pertaining to the subject matter of the research. In order to achieve this objective, a total of 36 specialists were identified based on the recommendations of

their supervisors and advisors, and the model's internal validation was conducted via electronic mail. After multiple notifications and follow-ups, a total of 30 members from the statistical sample successfully completed the questionnaire.

Ethical considerations

Regarding the observance of ethical points in this research, all factors and resources have been used to observe the principle of trustworthiness. In fact, the magnification and non-manipulation of beneficial results, justice, non-harming, and respect for the participants were considered. In this regard, the researchers paid special attention to the following points: Obtaining written consent from the participants, determining the time of the interviews by the participants and respecting their time, not imposing the researcher's opinions on the participants and it was explained to the participants that their continued participation in the research is completely optional and they can withdraw from the research at any stage.

Results

The characteristics of the experts involved in the internal validation are outlined in Table 2.

Table 2. Characteristics of the expert group in the internal validation of the model

Variable	Male		Female		Total	
	M	SD	M	SD	M	SD
Age	40.46	4.92	43.33	13.66	41.03	7.26
Experience	15.13	6.29	12.17	6.91	14.53	6.40
Education	F	%	F	%	F	%
PhD Student	11	36.66	2	6.66	5	16.66
PhD	4	46.66	3	10	25	83.33
Academic rank	F	%	F	%	F	%
Student	11	36.67	2	6.67	13	43.33
Lecture	4	13.33	1	3.33	5	16.67
Associate professor	2	6.67	1	3.33	3	10
Assistant professor	8	26.67	1	3.33	9	30
Total	25	83.33	5	16.67	30	10

As can be seen in the above table, 25 male and 5 female, PhD students, individual with PhD degree and university faculty members include associate professors, assistant professors, instructors, and students participated in the internal validation of the model.

In table 3, the findings of the internal validation of the model employed by the club of learning facilitators in relation to the professional training and development of employees in the Department

of Education in Hormozgan province are presented. These findings are based on the responses provided by experts in education and educational management, as well as faculty members in education. The results are reported as an average and standard deviation. The information gathered from the group of experts underwent testing using a one-sample T-test. These calculations were conducted for 7 different subjects that pertain to the internal validity of the model. The Likert scale was used to assess the responses, with a numerical value of 3 serving as the threshold for comparing the average scores.

Table 3. The results of validity of the learning facilitators club model

Component	M	SD	T value	DF	P
The relationship between the model and the research subject	4.33	0.61	12.04	29	0.001
Usability	4.06	0.78	7.44	29	0.001
Relationships between model elements	4	0.52	10.43	29	0.001
The comprehensiveness of the model	4.10	0.55	11	29	0.001
Understandable	3.80	0.89	4.94	29	0.001
Model innovation	4.22	0.77	8.73	29	0.001
Widespread application of the model	4.23	0.73	9.28	29	0.001

The results of examining the components of the internal validity of the model of the club of facilitators related to professional training and development of the employees of the Education Department of Hormozgan province showed that this model is significantly approved and agreed by the experts and experts in this field. The statistical indicators showed the relationship of the model with the research subjects ($M=4.33$, $t=12.04$, $p<0.001$), the applicability of the model ($M=4.06$, $T = 7.44$, $p < 0.001$), relationships between the elements of the model ($M=4.00$ $T =10.43$, $p < 0.001$), comprehensiveness of model ($M=4.10$, $T = 11$, $p < 0.001$) comprehensibility ($M = 3.8T = 4.94$, $p < 0.001$) model innovation ($M=4.23$, $T = 8.73$, $p < 0.001$) and widespread application of the model ($M=4.23$ $T = 9.28$, $p < 0.001$) is significant. Therefore, from the point of view of experts, the model of the Club of Learning Facilitators for Special Education and Professional Development of the Education Department of Hormozgan Province is at a high and completely favorable level.

Discussion

The primary objective of the forthcoming research was to present a model of a club for learning facilitators that focuses on professional and training development for employees of the Education Department in the province of Hormozgan. In order to accomplish this objective, an initial step involved reviewing relevant documents and texts, as well as examining historical records to establish a theoretical framework for the research topic. Subsequently, semi-structured interviews were conducted with experts in the field to collect necessary data, which were then analyzed using qualitative content analysis. Through this analysis, four main components and sixteen sub-components were identified using the open and axial coding method. Ultimately, the model for the learning facilitators club, designed to enhance training and professional development for employees of the Education Department in Hormozgan province, was compiled and presented. To ensure the internal validity of the model, a researcher-created questionnaire was employed. The research findings indicated that the model of learning facilitators club, aimed at professional training and development for employees of the Education Department in Hormozgan province, was highly credible and well-regarded by experts.

The acquisition and utilization of knowledge is a critical determinant of success in contemporary organizations. Learning, as a pivotal organizational capability, has the potential to enhance performance, foster adaptability, and instigate transformative processes. The field of education, being a significant educational institution, also necessitates a commitment to continuous learning in order to fulfill its objectives. Given the rapidly changing nature of today's society, it is imperative to embrace perpetual change and mobilize all available resources for organizational learning. The Education Organization, as a prominent entity within the nation's education sector, must prioritize organizational learning and the augmentation of managerial and employee competencies in order to attain its goals. The establishment of a learning facilitators club, serving as an appropriate mechanism for individual and organizational learning, can play a pivotal role in the development of the learning capabilities of the education organization. Hence, there exists a growing recognition of the significance of learning facilitators in the professional development of employees within public organizations. This recognition reveals that employees continuously acquire knowledge, skills, and ideas from their environment (Becker and Bish, 2017; Cunningham and Hillier, 2013; Kesbo and Ferguson, 2012; Agriculture of Work, 2015). This is because they

adopt a problem-oriented approach and strive to learn from the challenges they encounter in their work, thereby constructing their knowledge structure through experiential learning and actively collaborating with others. Consequently, this research places emphasis on the role of the learning facilitators club, where employees acquire knowledge and skills through coaching, mentoring, self-directed learning, and networking. Moreover, the establishment of a specialized learning facilitators club for employee development is advantageous as it enhances the level of practical knowledge and skills required in the work environment, thereby leading the organization towards effectiveness and efficiency. The optimal performance of learning facilitators represents a significant stride in this direction.

The impact of human resources on organizational operations is widely recognized. Consequently, the attainment of an organization's vision and mission is contingent upon the presence of skilled and continuously learning human resources (Ezzati, Yuzbashi, and Shatri, 2016). Simultaneously, the influential role of competent employees in enhancing organizational performance is evident to all (Noka and Ahaizo, 2008). As such, the significance of nurturing employee learning in non-industrial and educational-cultural settings is underscored, as it substantiates the notion that investing in the development of employee competencies yields expedited operational accomplishments for organizations (Ahanchian and Zahor Doshe, 1389). A pivotal criterion that significantly contributes to the success and efficacy of managerial development programs in educational and cultural contexts is the effective transfer of acquired knowledge to the practical work environment.

The present study is subject to certain limitations, namely the restriction of the sample to education workers in Hormozgan province and the utilization of a researcher-devised questionnaire. In light of this, it is recommended that future research replicate the current study in other provinces and cities nationwide, encompassing employees from diverse organizations. The findings demonstrate that autonomy in action is a form of support in the learning tasks of Education Department employees in Hormozgan province. Consequently, expanding the scope of autonomy for upper-level managers is advised, as it would enable them to assume a more influential support role. Additionally, granting managers and subordinate employees the authority to set goals, design learning tasks, and exercise complete control over their work would be conducive to increased

effectiveness. Moreover, the findings indicate that personalization of the learning environment facilitates the execution of learning tasks. To enhance the efficacy of such tasks, it is suggested that upper-level managers in the education department align learning projects with the employees' learning style, capabilities, and expertise, thus establishing Hormozgan province as a subset. The importance of knowledge sharing in establishing a learning facilitators club is evident from the findings. Hence, the design and establishment of online learning networks and communities are recommended to foster knowledge and information sharing among employees and managers, enabling each individual to access the necessary information for their respective tasks and learning projects.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by ethics committee of Islamic Azad University.

Author contributions

All authors contributed to the study conception and design, material preparation, data collection and analysis. The author contributed to the article and approved the submitted version.

Funding

The authors did (not) receive support from any organization for the submitted work.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

References

- Abtahi and Absi (2016), Empowering Employees, First Edition, Management Research and Training Institute.
- [Ahmad Zaky El Islami, R.](#), Anantanukulwong, Roseleena., [Faikhamta, Chatree](#). (2022). Trends of Teacher Professional Development Strategies: A Systematic Review. *International Journal of Education*, vol. 10, no. 2, 2022, pp. 1–8. DOI: <https://doi.org/10.34293/education.v10i2.4628> .
- Ahmadi, Omid; Kamalian, Amin Reza; Yaqoubi, Noor Mohammad; Ghasemi, Mohammad; Jalali, Seyed Saeed. (2019). Designing a model for improving the performance of employees in the

- Ministry of Interior with the foundation's data approach. *Journal of resource management in the police force*, volume 6, number 4, page 1-34.
- Akiba, Motoko. , et al. (2019). "Lesson Study Design Features for Supporting Collaborative Teacher Learning." *Teaching and Teacher Education*, vol. 77, 2019, pp. 352-65.
- Andreou, Panayiotis C., Louca, Christodoulos, Petrou, Andreas, (2016), Organizational learning and corporate diversification performance, *Journal of Business Research*, 69 (2016) 3270 –3284.
- Asheghi, H. & Ghahramani, M. (2017). Developing Professional Development Programs for Managers and Staff in the Branch of Monetary and Banking. *Quarterly Journal of Training & Development of Human Resources*, 3(11), 1-20. [Persian]
- Asio J. M. R., Jimenez, E. C. (2020). Professional Development, Organizational Climate, Supervisory Rapport and Overall Satisfaction of Employees: An Attitudinal Study. *International Journal of Scientific Research in Multidisciplinary Studies*. Vol.6, Issue.4, pp.34-40, April
- Chiou, & Chen (2022). Relations among Learning Orientation, Innovation Capital and Firm Performance: An Empirical Study in Taiwan's IT/Electronic Industry, *International Journal of Management*, 29, (3) Part 2 (September), 321 -332.
- Chiva, R., Alegre, J. &Lapiedra, R. (2017), Measuring organizational learning capability among the workforce, *International Journal of Manpower*, 28(3/4), pp.224-242..
- Chizari, Arasteh (2015) "Investigation of the impact of employee training on the empowerment of human resources of the agricultural bank in the western region of Tehran" *bi-quarterly journal of management and planning in educational systems*, period 5, number 8: 78-94.
- Chung, H., Yang, Z., & Huang, P. -H. (2015). How does organizational learning matter in strategic business performance? The contingency role of Guanxi networking, *Journal of Business Research*, 68(6), 1216 –1224.
- Cotton, D., Bailey, I., Warren, M., Bissell, S., (2019). *Revolutions and second-best solutions: education for sustainable development* ", New York: Palgrave Macmillan.
- Farhang, A., Siadat, S. A., Hoyda, R., Molavi, H. (2020). "The simple and multiple relationship of organizational learning and social trust in the organization with the development of the employees of medical and non-medical state universities in the southeast of the country", *Applied Sociology*, 22nd year - serial number (41) - number 1: 159-182.

- Garrido, M.J. & Camarero, C. (2020). Organizational Learning and Innovation on Performance in cultural Organizations, *International Journal of Nonprofit Voluntary Sector Marketing*, August, 15, 215-232. DOI: 10.1002/nvsm.384.
- Garvin, D. A. (1993). Building a Learning Organization. *Harvard Business Review*, 71(4), 78-91.
- Garvin, D.A., (1993). Building a learning organization, *Harvard Business Review* (pp. 78–91) [July–August].
- Ghasemi. Mehdi (2017) Management of employee empowerment, Tehran, Managers publication.
- Goh, S., Richards, G. (2018), Benchmarking the learning capabilities of organizations, *European Management Journal*, 15(5), pp. 575-583.
- Gomez, J.P; Lorent, C.J.; Valle Caprera, R. (20015), Organizational learning capability: A proposal of Measurement, *Journal of business research*, 58, pp.715-725.
- Gomez, J.P; Lorent, C.J.; Valle Caprera, R. (2021), Organizational learning capability: A proposal of Measurement, *Journal of business research*, 58, pp.715-725.
- Harabadi Farahani, Saeed (2016). Examining the relationship between the organizational structure and empowerment of front-line employees and headquarters of Parsian Bank, Tehran branches, Master's thesis, University of Tehran.
- Harris, D. N., & Sass, T. R. (2011). Teacher Training, Teacher Quality and Student Achievement. *Journal of Public Economics*, 95 (1), 798–812.
- Hedayati, F. Kharazmi, R. (2016). Pathology of Implementation Development Document According to Organizational Change Management. *Rahborde Tousee*, 12(45), 240-259. [Persian]
- Hemtinejad, M., A., Ramzaninejad, R., Rezaei Kamani, A., Afsharanjad, T., and Shafiei, S., (2017) Evaluation of the performance evaluation system of physical education teachers. 38 (1), 111-128.
- Hosseini, Seyyed Mahmoud; Gurchian, Nadergholi; Jafari, Paryosh. (2021). Providing a model for the professional development of managers. Publication: Resource management in the police force. Year 1400, Volume 9, Number 3, 289-316.
- Huang, K. F., Lin, K. H., Wu, L. Y., & Yu, P. H. (2015). Absorptive capacity and autonomous R&D climate roles in firm innovation, *Journal of Business Research*, 68(1), 87 –94.
- Huber, G.P. (1999), Organizational learning: The contributing processes and the literatures, *Organization Science*, 2(1), pp. 88-115.
- Kamrai, Alireza; Sohri, Abbas; Hamidifar, Fatemeh; Mahmoudi, Amir Hossein; Shariatmadari, Mehdi. (2019). The model of professional development of school managers of technical and professional

- conservatories (using the data theorizing approach of the emerging foundation). *Scientific journal of educational technology*, volume 15, number 3, summer season.
- Kashi Nahanji, Vahida; Esfandiari Moghadam, Alireza; Erfani, Nasrallah. (2017). Development of standard structural model of professional development of student-teachers of Farhangian University based on their information literacy. *Career and Organizational Consulting Journal*, 2017, Volume 10, Number 36, 69-102.
- Khairandish, Mehdi; Abbaspour, Hamed, Barani, Samad. (2018). A comprehensive model of factors that facilitate learning in defense organizations. *Journal: Innovation Management in Defense Organizations*, 2018, Volume 2, Number 4, 1-28.
- Kinella, Denis (2013). *Sources of Human Resources Empowerment*, translated by Iran Nezaad Parisi and Suleiman, Managers Publications, first edition, Tehran.
- Naybi, M., Naybi, M. A. (2018). "Employee Capability Maturity Model (p-cmm), *Tadbir Management*, November 2018, No. 198: 31-35.
- Nazimi, Mehdi (2018) Determining the relationship between organizational justice and its dimensions with employee empowerment in Khorasan Razavi General Administration, sports management studies.
- Paolucci, C., Ní Ríordáin, M., & O'Dwyer, L. (2021). A critical examination of the impacts and lessons learned from a professional development program for out-of-field mathematics teachers. *European Journal of Mathematics and Science Education*, 2(1), 47-62. <https://doi.org/10.12973/ejmse.2.1.47>
- Ploeger, Wilfried., et al. (2019). "Development of Trainee Teachers' Analytical Competence in their Induction Phase - A Longitudinal Study Comparing Science and Non-science Teachers." *Teaching and Teacher Education*, vol. 85, pp. 215-25.
- Richter, Dirk, et al. (2019). "What Motivates Teachers to Participate in Professional Development? An Empirical Investigation of Motivational Orientations and the Uptake of Formal Learning Opportunities." *Teaching and Teacher Education*, vol. 86
- Roberts, N. (2015). Absorptive capacity, organizational antecedents, and environmental dynamism, *Journal of Business Research*, 68(11), 2426 –2433.
- Sadri, M. (2019). Building a successful team in the organization, effective team factors, combining differences. *Tadbir monthly*, year 18, number 190.

- Scher, Lauren., and Fran, O'Reilly. (2009). "Professional Development for K–12 Math and Science Teachers: What do we Really Know?." *Journal of Research on Educational Effectiveness*, vol. 2, no. 3, 2009, pp. 209-49.
- Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. Jossey-Bass.
- Shaarinejad, Moazzam (2017). The effect of psychological empowerment of employees on the development of a learning organization in Iran's National Oil Products Distribution Company; *Scientific-promotional journal of human resources studies*, first year, third issue: 138-154.
- Shahbazi, Maryam; Al-Hayari, Alireza, Mirkamali, Sadegh (2019). *Employee Empowerment*, Naja Human Resources Quarterly, Tehran.
- Shahlai, Nasser; Khairandish, Mehdi (2018) *Aviation Engineering Quarterly*, Year 12, Volume 2, pp. 65-73.
- Shirazinejad, Amir; Saidian Khorasgani, Narges; Shah Talebi Hosseinabadi, Badri. (2018). Qualitative study of professional development factors of Iranian school principals. *Health-Oriented Lifestyle Quarterly*, Volume 3, Number 5, Winter.
- Sinkula, J.M. (1994), Market information processing and organizational learning; *Journal of Marketing*, 58(1), pp. 35-45.
- Slater, S.F. and Narver, J.C. (1995), Market orientation and learning organization, *Journal of Marketing*, 59, pp. 61-73.
- Zhao, J. (2020). School knowledge management framework and strategies: The new perspective on teacher professional development. *Computers in Human Behavior*, 26(2), 168-175.