



Components of Teachers' Professional Development and Their Effects on Job Performance Through The Mediation of Job Values (Case Study: Babol High School Teachers)

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ARTICLE

INFO

Article history:

Received:

07/08/2022

Accepted:

01/02/2023

Available
online:

Winter 2023

Keyword:

Professional
Development,
Job Value, Job
Performance,
Babol High
School
Teachers.

Abstract

High school teachers play an important role due to the specific age range of students. The present study was conducted to determine the effect of professional development and job values on job performance of Babol high school teachers. This study is applied in terms of objective. In this study, quantitative approach, survey strategy, descriptive method, correlation, multiple linear regression and path analysis were used. The statistical population of the research consists of 1438 Babol high school teachers who were working in the academic year of 2022-2023. Using Cochran's formula, 364 teachers were selected as a sample by simple random method. The data collection tools are three questionnaires of professional development, job values and job performance. The data was analyzed by Pearson correlation coefficient and multiple linear regression by SPSS 25 and path analysis model by AMOS 22. The results showed that professional development had a significant effect on job performance both directly and indirectly through job values as a mediating variable and can predict it. It is suggested that the education officials use scientific and practical methods to provide the conditions for the professional development of teachers in order to promote their job values and improve their job performance.

Vakili, KH. (2023). Components of Teachers' Professional Development and Their Effects on Job Performance Through The Mediation of Job Values (Case Study: Babol High School Teachers), *Journal of School Administration*, 10(4), 63-89.

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Introduction

In today's world, education, as one of the main factors of economic, social and cultural development, plays an essential role in the education of human capital. Studies have shown that the effectiveness and efficiency of the educational system plays a significant role in the comprehensive development of societies (Hosseinpoor, Fazlollahi, & Mohamadi, 2020). In this era, human resources are more important than other organizational resources, to the extent that economists state that in the process of social and economic development of a country, human resources play the most important role and influence national development (Tabarbae, Bastan, Shayeganfard & Behroozi, 2014). Currently, education needs people who can take steps to design and implement measures for their own and their colleagues' development in addition to self-management. Professional development requires a change in attitude and beliefs first, and then planning and providing a suitable framework (Hejazi, Pardakhtchi & Shahpasand, 2020). Given the importance of human resources as the most valuable organizational resource, it can be said that in education, the importance of human resources is doubled in achieving proper and continuous performance. Job performance of teachers as the expected value of education can be considered as an index to determine the level of efficiency of the country's education system. Therefore, knowledge of job performance of teachers and the factors affecting it can be a way to improve education (Bavali, Keykhosrovani, Deyreh & Rajabi, 2022). Values can be considered as the beliefs of individuals

and groups and a set of dos and don'ts that guide their actions and are the reference for judgments they make about themselves and others. Values are the basis of attitudes, motivations and behaviors and are the basis of the basic assumptions of a society. Understanding these values makes the nature of attitudes, activities and behaviors identifiable (Mohammadi Moghadam & Heidari, 2017). Although the topics related to work values and literature are developing, there is no agreement among researchers in this field about the definition of job values. For example, Lee considers job values as a goal that a person pursues in order to search for his own desired needs. The main issue in the above definition is value, which should be noted that values in different societies and cultures may be different and the root of these values is in basic beliefs that will affect the attitude, individual behavior and even organizational performance (Vakili, 2022).

Theoretical principles of research

Financial, physical and technological resources in an organization alone are not considered as advantages. The existence of capable, efficient and talented human resources is considered as the competitive advantage of the organization. In addition, it can compensate for the lack of other resources. In the current competitive situation and changing and modernizing setting of today's era, only organizations that understand the strategic role of their human capital and use talented, creative, skilled, and capable human resources will be the best in maintaining, and reproducing these resources (Mirkamali, Hajkhozeymh & Ebrahimi, 2015). One of the ways to maintain and reproduce skilled and efficient human resources is

to train resources consistent with their professional development. Training is the process of bringing resources to the desired level of competence and ability. Of course, training has costs, and these costs are considered as a kind of investment, and it has a close connection with the competitive advantage of the organization, and it is for the renewal and empowerment of employees. The study results show that training improves and empowers the forces and this in turn increases efficiency (Shojaa, Karami, Ahanchian & Nadi, 2017). It can be said that the education system is one of the basic elements of every human society and its most important objective is the education of children and teenagers of every society by teachers and administrators. Achieving such an important goal requires enthusiastic, motivated and capable teachers (Ghadampour, Mansouri & Bakdeli Nasrabad, 2017). In any society, the task of education can be considered as the comprehensive growth and development of students' abilities and talents, which is one of the most complex and at the same time the most effective social processes in human societies. For this reason, organizations were established that are in charge of formal education of people in society, and in this era, one of the basic elements of the development of any country is its educational system (Tuytens, Moolenaar, Daly & Devos, 2019).

The term development means growth step by step in the direction of becoming more advanced, stronger and sometimes bigger. Professional development refers to the development of a person in his professional role. It can be said that professional development includes formal experiences (such as participating in training courses,

workshops, etc.) and informal experiences (such as reading specialized articles and publications, watching relevant documentary videos, self-improvement, etc.) (Shirbagi & Nasiri Nia, 2020). The professional development of teachers includes a series of activities, including improving the quality of teachers' teaching, continuous training and improvement of teachers, creating and developing new skills in teachers, creating and increasing teachers' motivation and self-confidence, increasing teachers' adaptation to the school environment, Paying attention to the maintenance of human resources in the school and creating and increasing the level of organizational commitment in teachers. In the educational system, one of the important factors of achieving success in the education of students is the meaningful access and participation of teachers in professional development activities. Professional development of teachers is "processes and activities designed and implemented in order to increase the knowledge, skills and professional attitude of teachers so that they can improve learning in students (Guskey, 2002). The professional development of teachers plays a significant role in improving the performance of schools, so it can be said that professional development and increasing the knowledge and skills of teachers is a prerequisite for success in education. So that new approaches to professional development emphasize lifelong learning and do not consider professional development as a short-term intervention, but rather as a long-term activity that began with the training of teachers at the university and continues with their participation in in-service training courses, training

workshops, scientific seminars and specialized individual study (Richter, Kunter, Klusmann, Lüdtke & Baumert 2014).

Professional development has five empirical indicators, including active learning in the classroom, active learning beyond the classroom, focusing on teachers' content knowledge and how students learn the material, adapting to teachers' needs and conditions, and collective participation in professional development (Shirbagi & Nasiri Nia, 2020). Given the main factors of professional development and contextual factors affecting professional development, Desimone believes that the direct consequence of professional development is to change the beliefs and attitudes of teachers, which in turn causes changes in education and teaching. He considers the final outcome of teachers' professional development to improve student learning (Desimone, 2009).

The teacher is the most important factor of teaching and transferring knowledge to students who plays the main role in the teaching-learning process. So the success of the teaching-learning process in any educational system depends to a large extent on the teacher and his abilities. Therefore, increasing the knowledge and improving the professional skills of teachers will improve the education process. It is clear that the world is changing quickly, and teachers, like other people, face the fact that their education alone is necessary for their success, but it is not enough, and they should increase their professional knowledge and skills throughout their life and always be on time. Teachers have always played an important role in the education of human beings, so that the teacher can be

considered as the most key element in the educational system of any society, and the importance of this role is to the extent that society expects school teachers to prepare students for the future and the challenges of real life. For this reason, the abilities of future generations in facing the challenges are a function of the knowledge, ability, competence and efforts of their teachers today (Erfani & Aminimofrad, 2020).

Given the importance of the role of teachers in educational systems, it can be said that teachers are responsible for their job performance as well as the academic progress of their students. They should be motivated and teach with motivation to improve their job performance (Baldauf & Cravens, 2002). The job performance of teachers is actually their efficiency in the education system, which two factors, the ability and the motivation to train, affect job performance (Brown, Treviño & Harrison, 2005). Performance can be considered as the behavior and reactions of each person in relation to his job, so that behavior and reaction can be considered to achieve organizational goals. In organization management, performance is considered as a suitable index for measuring the efficiency and effectiveness of employees. Job performance can be defined as: efficiency and effectiveness in the tasks assigned to human resources in the organization. According to some researchers, job performance is a multi-dimensional concept, which includes the two dimensions of task performance and contextual performance (Moradkhah, Yazdanseta & Rasoulian, 2022). Most of the researchers in the field of organization and management agree on the importance of the concept of job performance, so that they consider job

performance as a structure that is based on how to perform organizational tasks, and job performance can affect organizational performance in various economic, social, educational, and similar fields significantly. Job performance is the efficiency of employees according to the legal tasks assigned. In other words, job performance shows the effort and success in performing job tasks and expected behavioral tasks (Mohamad, & Jais, 2016). The components of job performance structure include ability (knowledge and ability of employees to perform job tasks), role understanding (understanding the role of employees in the organization), organizational support (creating the necessary facilities to perform tasks), incentive (willingness of employees to perform tasks without coercion), training and feedback (performance evaluation), validity (appropriate decision making), and environment (appropriate environmental factors) (Hersey & Goldsmith, 1980). Job performance is the result of operational processes and the realization of organizational goals. In other words, job performance is the result of the tasks assigned to human resources by the manager in the organization (Lopez, 2008).

Job performance is a concept considered by psychologists as the product of human behavior. It is believed that motivations and needs have an effect on the performance of individuals and finally on the economic growth and development of society (Frese & Fay 2001, quoted by Salimi & Abdi, 2015). Job performance means the degree to which employees perform the jobs assigned in a specific work situation (Suliman, 2007). Some consider job performance as a composite construct

based on which successful employees can be distinguished from unsuccessful employees using a set of criteria. Job performance has various dimensions, and some researchers such as Borman and Motowidlo have divided job performance into two dimensions, task performance and contextual performance. Task performance refers to the ability and skill of the employee to perform the job responsibilities that have been officially assigned to him by the organization. Contextual performance refers to the activities that the employee performs other than the official organizational tasks and in order to support the social environment of the job in addition to the main activities of the organization and does not expect to receive a reward for doing it (Salimi & Abdi, 2015). Job performance is defined as the organizational value of job behaviors in different times and job situations. The organizational value means the estimate that the organization has of the activities and services of its employees (Feizi & Rahimi, 2013, quoted by Shafighi, Kalantari & zolfaghari zaferani, 2014). Some researchers consider job performance to have more than two dimensions, for example, Dow, Prejmerean and Vasilache considered seven dimensions for job performance, which are:

Ability: the ability of the employee to perform assigned tasks.

Clarity: the visual effects of a person's performance in the eyes of the organization's managers and makes the tasks look bigger.

Help: the help the employee receives from others in performing his tasks.

Incentive: the willingness of the employee to perform his tasks, according to the available incentives.

Evaluation: the results of evaluating the performance of people by the performance evaluation system, which in a way shows the general opinion of the managers.

Credibility: the credibility of a person in performing organizational tasks and in a way it shows the confidence of the managers of the organization in the person.

Setting: the appropriateness of the workplace for the best results of the individual's efforts in receiving appropriate feedback from the work done (Shafiqhi et al., 2021).

Generally, values affect attitudes and behaviors. The more employees' values match with the organization, the more likely their performance will improve and their satisfaction will increase. For example, an employee who values dreaming, independence and freedom of action may not be able to adapt to an organization that seeks pure obedience from its employees. It can be said that the necessary condition for a person to be efficient and effective on the organization is that his values are consistent with the values of the organization (Rastegar, Mosaferi ghomi, Yazdani, Azar & Damghanian, 2017). Values can be considered as the basic beliefs of individuals and groups and are a set of dos and don'ts that guide their actions and are the reference for judgments they make about themselves and others. Values are the basis of attitudes, motivations and behaviors; and the basic assumptions of society. Understanding these values makes the nature of attitudes, activities and behaviors identifiable (Mohammadi Moghadam & Heidari, 2017). Although the topics related to work values and literature are developing, there is no

agreement among researchers in this field about the definition of job values. For example, Lee considers job values as a goal that a person pursues in order to search for his own desired needs. The basic issue in the above definition is value, which should be noted that values in different societies and cultures may be different and the root of these values is in basic beliefs that will affect the attitude, individual behavior and even organizational performance (Vakili, 2022).

Values of society are the factors and elements that are desired according to the majority of people of that society. Values may change over time, in other words, the importance and validity of values may reduce and give way to other values over time, or on the contrary, their importance and validity may increase and manifest as high values (Mohammadi Moghadam & Heidari, 2017). Fitter (1982) stated that a class of motivations is used as performance standards to motivate thoughts and activities related to job path development. Brown (2002) considers job values as satisfying outcomes that employees expect to achieve by engaging in their jobs. In general, it can be said that job values are evaluation standards related to the job or workplace that people recognize what is right, i.e., work values include a spectrum from morality to preferences. One side of the spectrum is morality that which has standards for distinguishing between good and bad, and the other is the preference that does not include good and bad (Khanifar, Zaree Matin & Hasanzadeh, 2012). It should be noted that maybe values are different in different societies and cultures because the source of values is the basic beliefs and these values influence people's

attitude, individual behavior and organizational performance (Vakili, 2022). Job values of the employees form their perception and preferences, affecting the attitude and behavior of the employees and creating the desires of the employees that they want to realize through work (Kheirandish, Bakhshandeh & Shaabany, 2018). Values, like ambitions, are fundamental, and in fact, job values reflect the way people think about jobs, which include cases that are important in both life and work.

Literature review

Bavali et al. (2022) in a study entitled "proposing a model of the structural relationships of the sense of coherence and responsibility with the job performance of employees through the mediation of emotional intelligence" showed that the sense of coherence and social responsibility and emotional intelligence have a direct effect on job performance of employees. In a study by Hosseinpour et al., (2020) the relationship between job performance and self-efficacy; and professional development of secondary school teachers in Qom was investigated. They concluded that a significant relationship is between job performance and self-efficacy; and professional development of secondary school teachers in Qom. In a study, while defining and interpreting job performance, Fani et al. (2022) showed that the model of Jihadi culture's effect on job performance with the mediation of organizational justice and social capital was statistically significant. In a study by Khorramanesh, (2022) job performance is predicted based on citizenship behavior and general health of the organization of school principals. It was concluded that the dimensions of

citizenship behavior are significant predictors of school principals' job performance.

In a study entitled "prediction of teachers' job performance based on managers' distributed leadership and self-management strategies", Heidarifard et al. (2022) have shown a significant and direct relationship between distributed leadership and self-management strategies; and job performance of primary school teachers in Malekshahi city. In a study on the relationship between professional development and academic performance, Amiri concluded that a positive and significant relationship is between professional development of teachers and academic performance of students in connection with school, and connection with school and academic performance of students; and connection with the school has played a mediating role in the relationship between professional development of teachers and academic performance of students.

Buczynski and Hansen (2010) in a study entitled "Impact of professional development on teacher practice: Uncovering connections" showed that the teachers are beginning to have deeper understanding of content, a stronger commitment to inquiry-based learning activities, and trend toward higher student achievement scores and professional development that makes connections between teacher and student perspective is also highly valued by teachers, as was receiving foundational knowledge about how students learn and think about science. Coldwell (2016) in a study entitled "Exploring the influence of professional development on teacher careers: A path model approach" showed that there is a relationship between professional development and job

retention and provided empirical evidence of how this could work through a pathway of intermediate and mediating outcomes, and how this relationship could be influenced by a set of influencing factors. Literature review shows that several factors have an effect on job performance of people, especially teachers. This study investigated the effect of teachers' professional

development on their job performance given job values as a mediator.

Given the problem statement and literature review, it can be said that professional development of teachers and job value have a potential effect on job performance of teachers. Accordingly, a conceptual model was designed as shown in Figure 1.

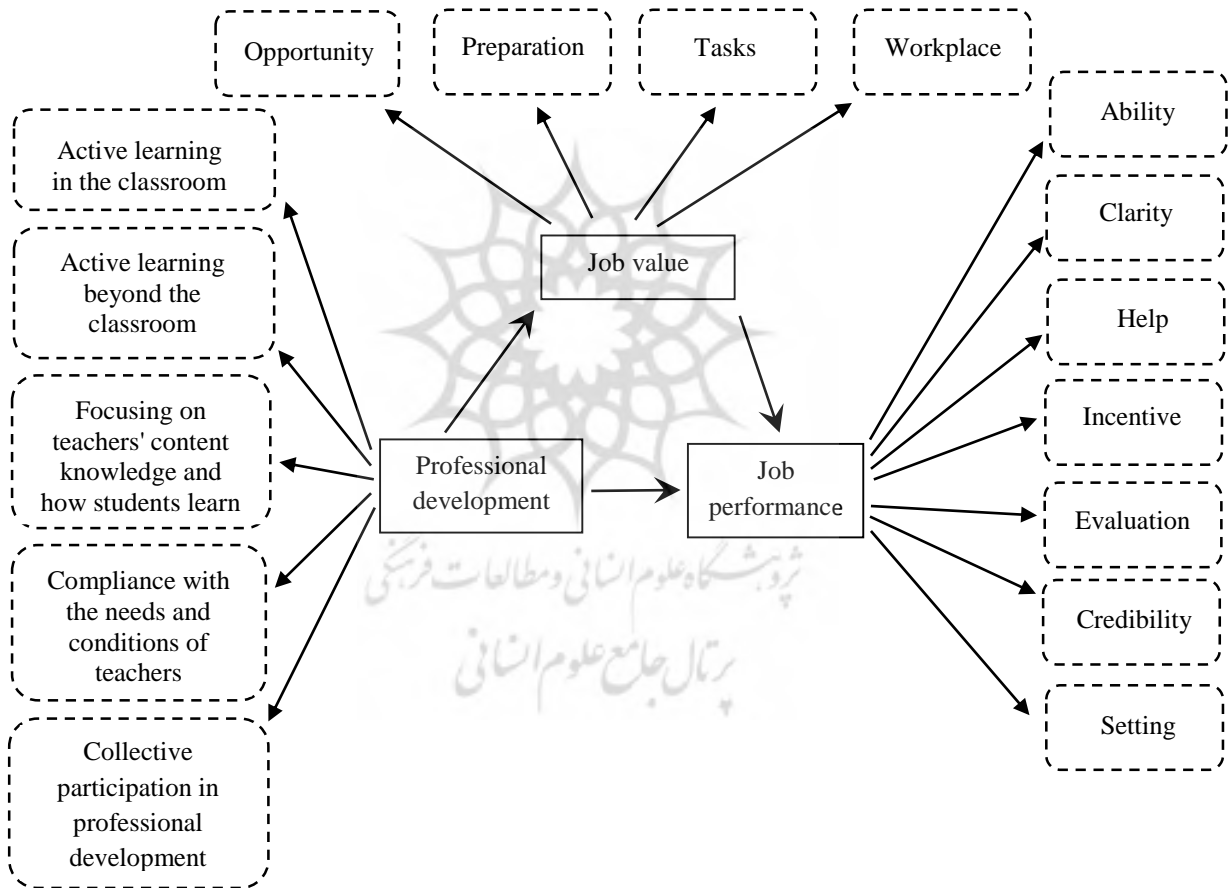


Figure 1. Conceptual model of research

Based on the above conceptual model, the research hypotheses are formulated as follows:

1. Professional development affects job performance of Babol high school teachers.
2. Professional development affects job values of Babol high school teachers.
3. Job values affect job performance of Babol high school teachers.
4. Professional development through job values indirectly affects job performance of Babol high school teachers.

Research methodology

One of the most important tasks in research is selecting the research method. Selecting a proper research method to find out the facts is very important. Given users and main orientation, research are fundamental, applied and developmental. Given the audience of the research, since this study attempts to identify the effect of teachers' professional development through the mediation of job values on job performance, this can be considered as practical. Also, in terms of the objective of research, it is exploratory, because this study was conducted to provide a general picture of job performance conditions. In terms of time, this study is cross-sectional according to its nature and the method of data collection. According to the hypotheses raised in this study, quantitative research approach, survey strategy and descriptive methods, correlation and multiple linear regression have been used. The statistical population of this study consists of 1438 Babol high school teachers who were working in the academic year 2022-2023. Using Cochran's formula, the sample size of $n=364$ was determined, and the sample

was selected randomly from 1438 teachers, to whom the relevant questionnaires were provided.

Measurement tools

Three questionnaires were used to measure the research variables, which are as follows.

Professional Questionnaire

Professional Questionnaire was developed by Soine and Lumpe (2014), the validity of which was calculated by Shirbagi and Nasiri Nia. This questionnaire has five components, including active learning in the classroom (7 items), active learning beyond the classroom (6 items), focusing on teachers' content knowledge and how students learn the content (14 items), adapting to teachers' needs and conditions (9 items) and collective participation in professional development (16 items). The items are on a 5-point Likert scale (almost never = 1, rarely = 2, sometimes = 3, often = 4, and almost always = 5) (Shirbagi & Nasiri Nia, 2020). The scores of this scale range from 52 to 260. The cutoff point is 156. Based on the cut-off point, scores above the cut-off point are good and scores below the cut-off point are poor.

Job Values Questionnaire

Job Values Questionnaire was developed by Bobek and Gore (2001) to be used online by people in the computer-based job search guide program. In this questionnaire, 22 job values are proposed and the subject should determine the importance of these values on a 4-point Likert scale (from 0 = I don't want to, to 3 = very important). The objective of this questionnaire is to find out the job values that are important for people. 22 specific values are categorized in 4 groups of

workplace, tasks, preparation and opportunities. The scores of this scale range from 0 to 66. The cut-off point is 33. Based on the cut-off point, scores above the cut-off point are good and scores below the cut-off point are poor (Vakili, 2022).

Job Performance Questionnaire

Job Performance Questionnaire was developed by Hersey and Goldsmith (1981) to measure the job performance of employees. This questionnaire has 7 components, including ability (4 items), clarity (7 items), help (5 items), incentive (6 items), evaluation (9 items), credibility (6 items) and workplace (5 items). The items are scored based on a 5-point Likert scale (very low=1, low=2, moderate=3, high=4 and very high=5) (Yousef Saber, Tabatabaei & Afrazeh, 2015). The scores of this scale range from 42 to 210. The cutoff point is 126. Based on the cut-off point, people with scores above the cut-off point had good job performance and people with scores below the cut-off point had poor job performance.

Reliability and validity of the data collection tool

A. Reliability

To understand the performance of a measurement tool, it is important that the

test used consistently differentiates individuals at one time or over a period of time. In other words, the reliability is the extent to which measurements are repeatable - when different people make measurements in different situations, under different conditions, using seemingly alternative tools that measure the same thing. In sum, the reliability is the consistency of measurement, or the consistency of measurement under different conditions in which essentially the same results are obtained (Drost, 2011). In other words, it can be said that the reliability is a degree of the uniformity of the results during a certain period of time and under the same conditions using the same method, which can be measured and the same results are obtained. Reliability is a criterion for evaluating measurement tools such as questionnaires and important for two reasons. First, the reliability indicates the presence of random errors in the measurement. For this reason, by increasing the sample size and the number of questions in the questionnaire, the random errors reduce and accordingly, the reliability increases. Second, the reliability is a narrative predictor (Mohammadbeigi, Mohammadsalehi & Aligol, 2014).

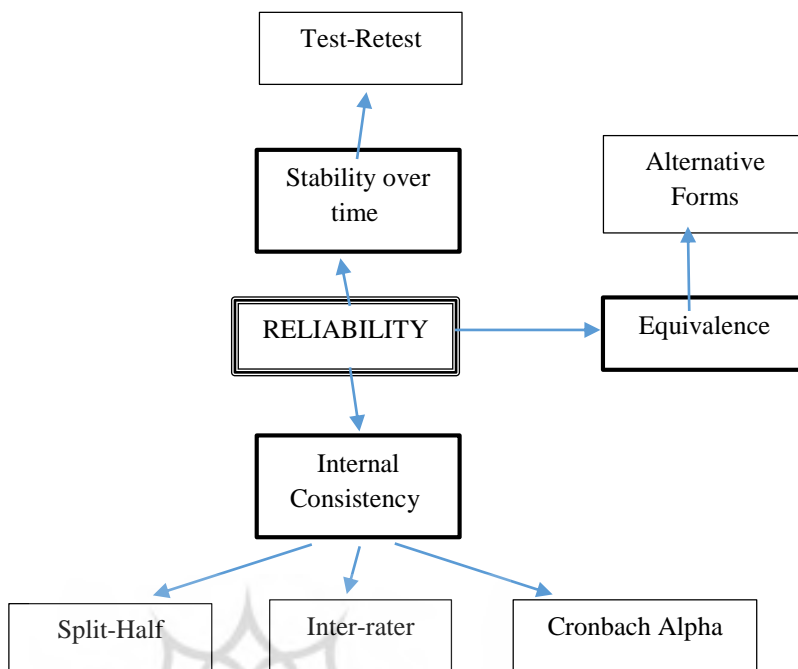


Figure 2. Different reliability measurement methods and their relationship with each other (Drost, 2011)

Cronbach's alpha was used for the reliability, and the Cronbach's alpha of the questionnaire was equal to

Table 1. Cronbach's alpha values for research variables

variable	component	Number of items	Cronbach's alpha
professional development	Active learning in the classroom	7	0.737
	Active learning beyond the classroom	6	0.784
	Focusing on teachers' content knowledge and how students learn	14	0.803
	Compliance with the needs and conditions of teachers	9	0.831
			0.937

	Collective participation in professional development	16	0.840	
Job value	workplace	7	0.725	0.830
	tasks	8	0.773	
	preparation	2	0.703	
	opportunity	5	0.812	
	ability	4	0.877	
Job performance	clarity	7	0.829	0.912
	help	5	0.762	
	incentive	6	0.854	
	evaluation	9	0.889	
	credibility	6	0.813	
	setting	5	0.787	

B. Validity

Validity means to what extent the measurement tool used is suitable for measuring the studied phenomenon. In other words, validity indicates the correct functioning of the research data collection tool. It should be checked whether the scores of the tool (not the tool itself) are valid. For this purpose, the following steps are considered: identifying the tool used for the measurement, reviewing previous studies that have used this tool, and confirming their validity and accuracy of using the tool in the research (Creswell, 2012).

Validity is a measure of the accuracy of the questionnaire data, which shows how well the questionnaire has

measured what it intended to measure (Mohammadbeigi et al., 2014). Validity and reliability of measurement tools are essential criteria to determine the accuracy of measurement tools. Reliability is related to random errors

and validity is related to regular errors.

It is clear that by increasing the sample size, random errors reduce and the reliability of the measurement tool increases, which increases the accuracy of the measurement tool. But it should be noted that increasing validity requires the use of standard and effective measurement tools. In other words, validity shows the accuracy of measurement (Lang & Wilkerson, 2008).

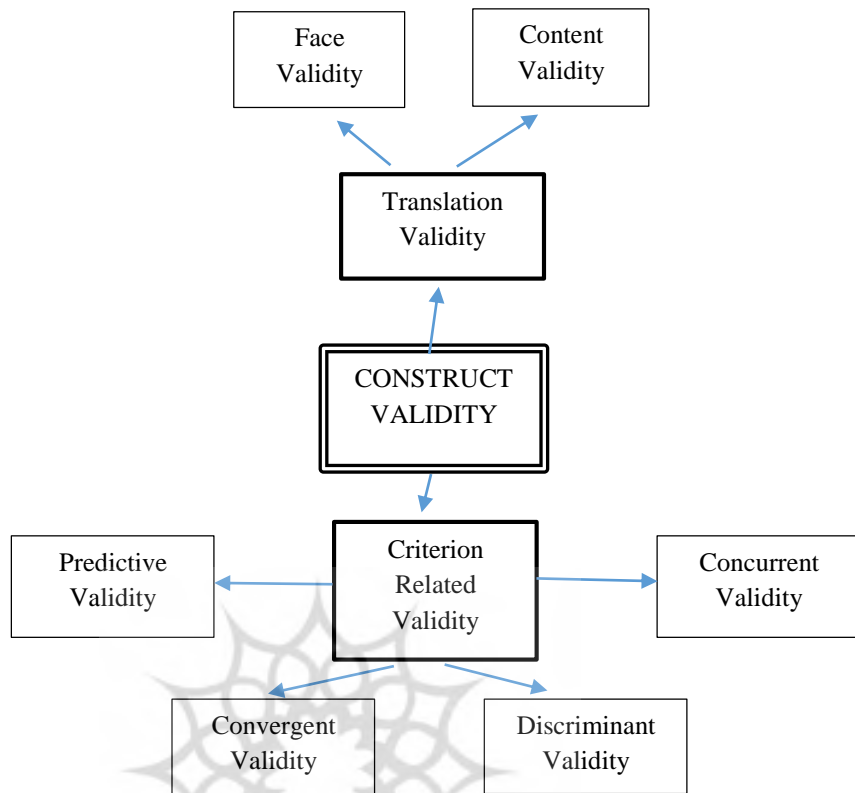


Figure 3. Different methods of confirming the validity of the structure and its dimensions (Drost, 2011)

In this section, for the validity of the questionnaire after the confirmation of the questionnaire by the professors, whose content validity was confirmed, the concurrent validity was used for the validity. For this reason, the questionnaire was given to 20 teachers to complete. After one week, we gave the same questionnaire to the same 20 teachers to complete again. Then, we put the results together and obtained the correlation of the answers using Spearman's correlation coefficient. Given that the statistic is equal to Spearman correlation = 0.847, the significance level is equal to Sig=0.000

and Sig<0.05, then we reject H₀ at the significance level of 5%, i.e., between the answers of teachers, a linear relationship is between the answers during a week, indicating that the validity of this questionnaire is good.

Evaluation of the research measurement model

For the structural validity of the questionnaire, we should see if the data obtained from the questionnaire has a suitable fit for measuring the variable. To answer this question, confirmatory factor analysis (CFA) was used for construct validity, and the results of Professional Development

Questionnaire, Job Values Questionnaire, and Job Performance Questionnaire are shown in Figures 5, 4, and 6.

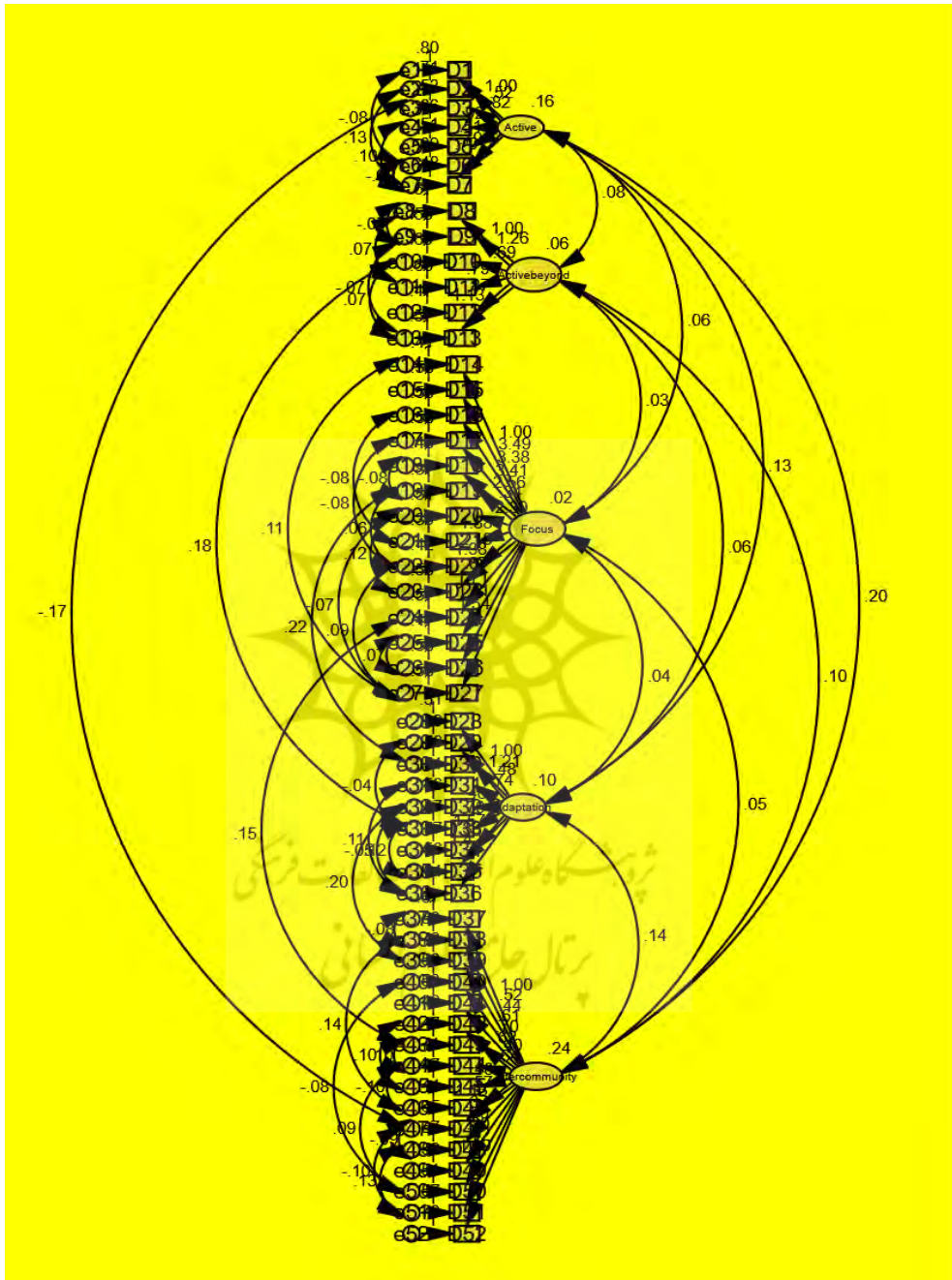


Figure 4. Measurement model of Professional Development Questionnaire (study results)

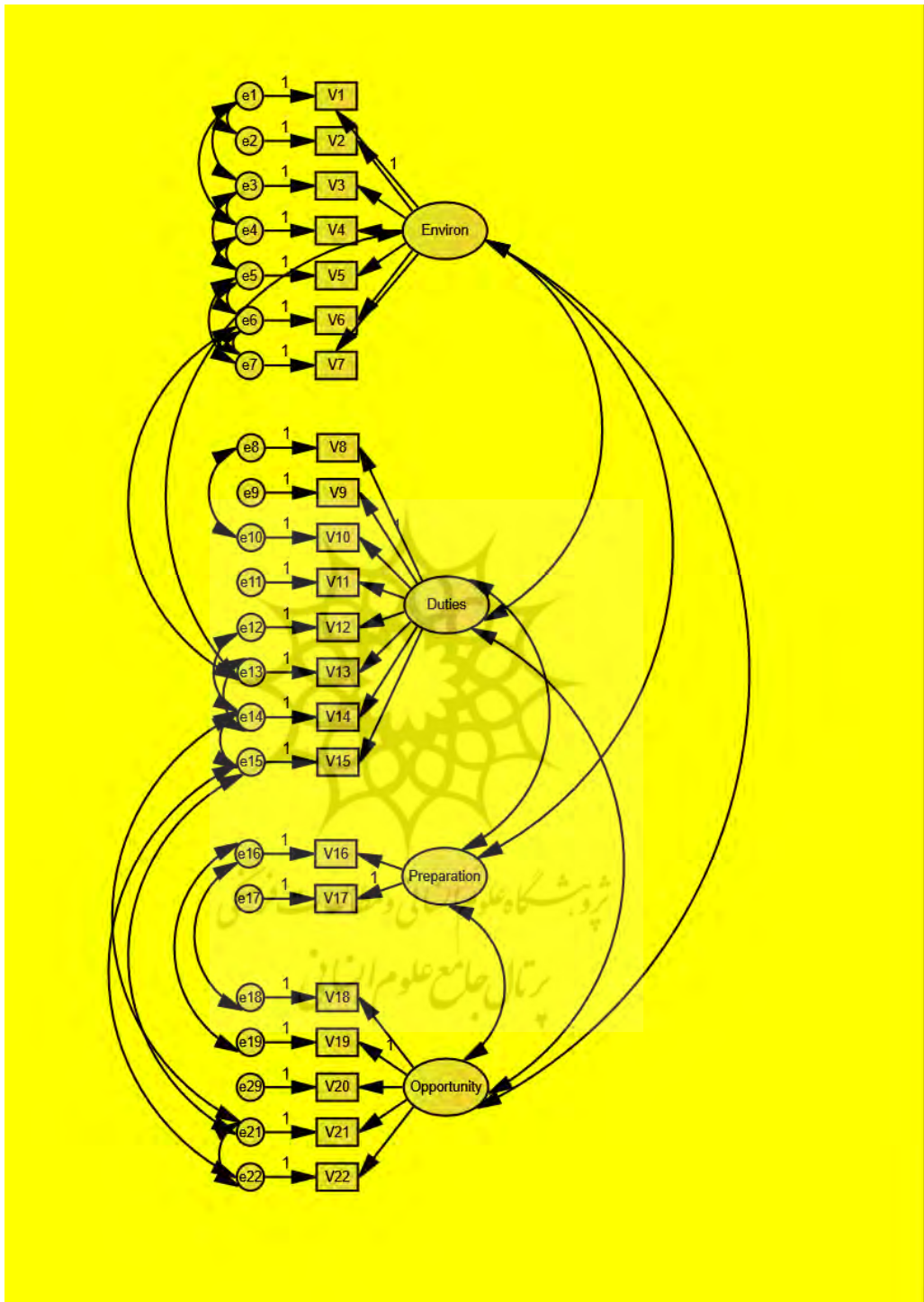


Figure 5. Measurement model of Job Values Questionnaire (study results)

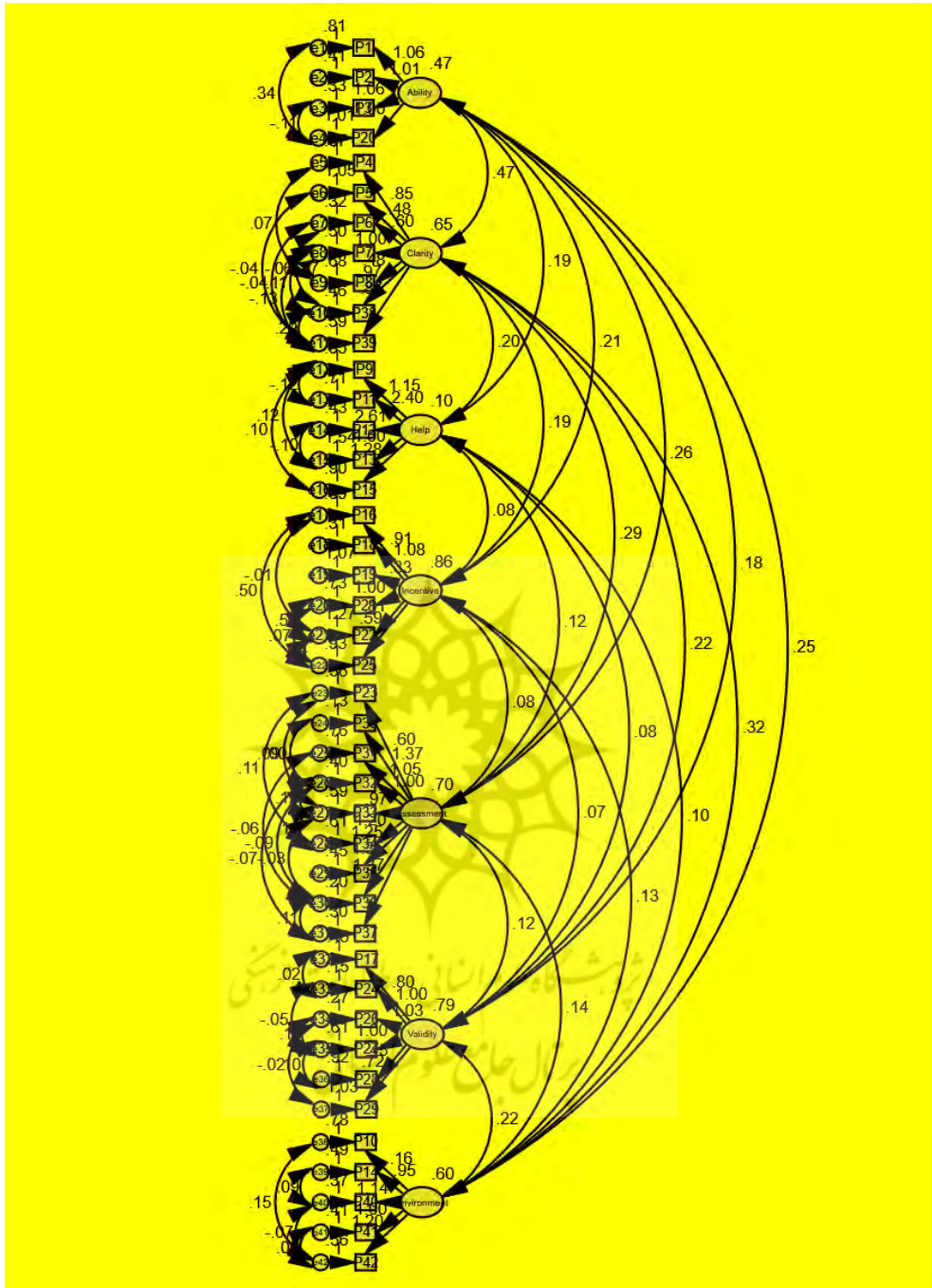


Figure 5. Measurement model of Job Performance Questionnaire (study results)

Table 2. Fit indices of the measurement model of Professional Development Questionnaire

GFI	CFI	RMSEA	CMIN/DF	P-value	DF	CMIN
0.902	0.893	0.052	1.996	0.000	1228	2451.33

Table 3. Fit indices of the measurement model of Job Values Questionnaire

GFI	CFI	RMSEA	CMIN/DF	P-value	DF	CMIN
0.898	0.926	0.056	2.590	0.000	182	471.33

Table 4. Fit indices of the measurement model of Job Performance Questionnaire

GFI	CFI	RMSEA	CMIN/DF	P-value	DF	CMIN
0.854	0.883	0.062	2.387	0.000	760	1813.89

According to the values of the above indices, it can be said that some of the fit indices are in the optimum range and some are in the appropriate range. It seems that the tested model has been properly fitted to the collected data, indicating that the structure of the constructs and questionnaires have been confirmed. In other words, the validity of the questionnaires is optimum.

Results

The results of descriptive statistics about demographic variables show that in terms of gender, 176 teachers (48.4%) are women and 188 teachers (51.6%) are men. For the level of education, 252 teachers (69.2%) have a bachelor's degree, 96 teachers (26.4%) have a master's degree, and 16 teachers (4.4%) have a doctoral degree.

Table 5. Statistical indicators for research variables

Variable	Mean	Standard deviation	Minimum	Median	Maximum	Cut point
Professional development	191.07	16.02	95	194.5	228	156
Job values	41.23	6.26	24	41	55	33
Job performance	133.74	21.92	60	137	184	126

As shown in Table 2, it can be concluded that the average of all three variables of the research is higher than the respective cut-off points. Since the sample size is large (more than $n=30$), according to the central limited theorem,

there is no need to perform the normality test. So, the Student's t-test is used to compare the average with the cut-off point used, the results of which are shown in Table 3.

Table 6. Results of Student's t-test to compare research variables with cut points

Variable	Mean	T student statistic	Significance level	Result
Professional development	191.07	41.774	0.000	The mean is higher than the cutoff point
Job values	41.23	25.109	0.000	The mean is higher than the cutoff point
Job performance	133.74	6.739	0.000	The mean is higher than the cutoff point

According to the values of Student's t-test for each research variable in Table 4, it can be seen that the significance level for all three variables is smaller than the significance level of 0.05 and it can be concluded that the average professional development scores of the sample are higher than the average, as

well as the values of the sample is higher than the average and job performance is higher than the average and the cut-off point.

Pearson's correlation coefficient was used for the relationship between the variables, the results of which are shown in Table 4.

Table 7. Pearson correlation coefficient of research variables

Variable	Professional development	Job values	Job performance
Professional development	1		
Job values	0.874*	1	
Job performance	0.918*	0.784*	1

*significance level of 0.05

As shown in Table 4, at the significance level of 5%, it can be said that a direct linear relationship is between professional development, job values and job performance.

In order to investigate the predictive role of professional development and job value for job performance, multiple linear regression has been used, and the preliminary model is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + e$$

Table 8. Summary of the initial regression model for predicting emotional flexibility

coefficient of determination	Adjusted coefficient of determination	Durbin-Watson statistic	Fisher test statistic	significance level
0.873	0.872	2.061	1240.914	0.000*

*significance level of 0.05

Given the Fisher test statistic and the corresponding significance level shown in Table 5, it can be concluded that a regression relationship is between job performance as a dependent variable and professional development and job value as independent variables. It can be seen that the adjusted coefficient of

determination is equal to 0.872, indicating that about 87% of job performance changes are explained by the model. In addition, according to the Durbin-Watson statistic, which is between 1.5 and 2.5, it can be said that the model is suitable, but the regression coefficients should also be considered.

Table 9. Coefficients of the initial regression model for predicting job performance

predictor	coefficient	t-test statistic	significance level	Variance inflation factor
constant	-46.787	-14.456	0.000*	
professional development	0.299	14.091	0.000*	3.381
Job value	0.709	33.444	0.000*	3.381

*significance level of 0.05

As shown in Table 6, variance inflation factor was used for the non-Collinearity between predictor variables. Given that the mentioned factor is close to 3, it is concluded that the predictor variables are somewhat collinear, which is acceptable (Hair, Ringlets & Sarstedt, 2011). In the analysis of the regression coefficients of the initial model, it was seen that the value of the constant of the model is $\beta_0=-14.456$ and the variable coefficient

predicting professional development $\beta_1=0.299$ and the variable coefficient predicting job value $\beta_2=0.709$ and according to the values of the Student's t test and the values of the corresponding significance level it can be said that both professional development and job value variables play a role in predicting job performance, and we will continue from the work path analysis model to determine the effect of the variable job value as a mediating variable.

Evaluation of the research structural model

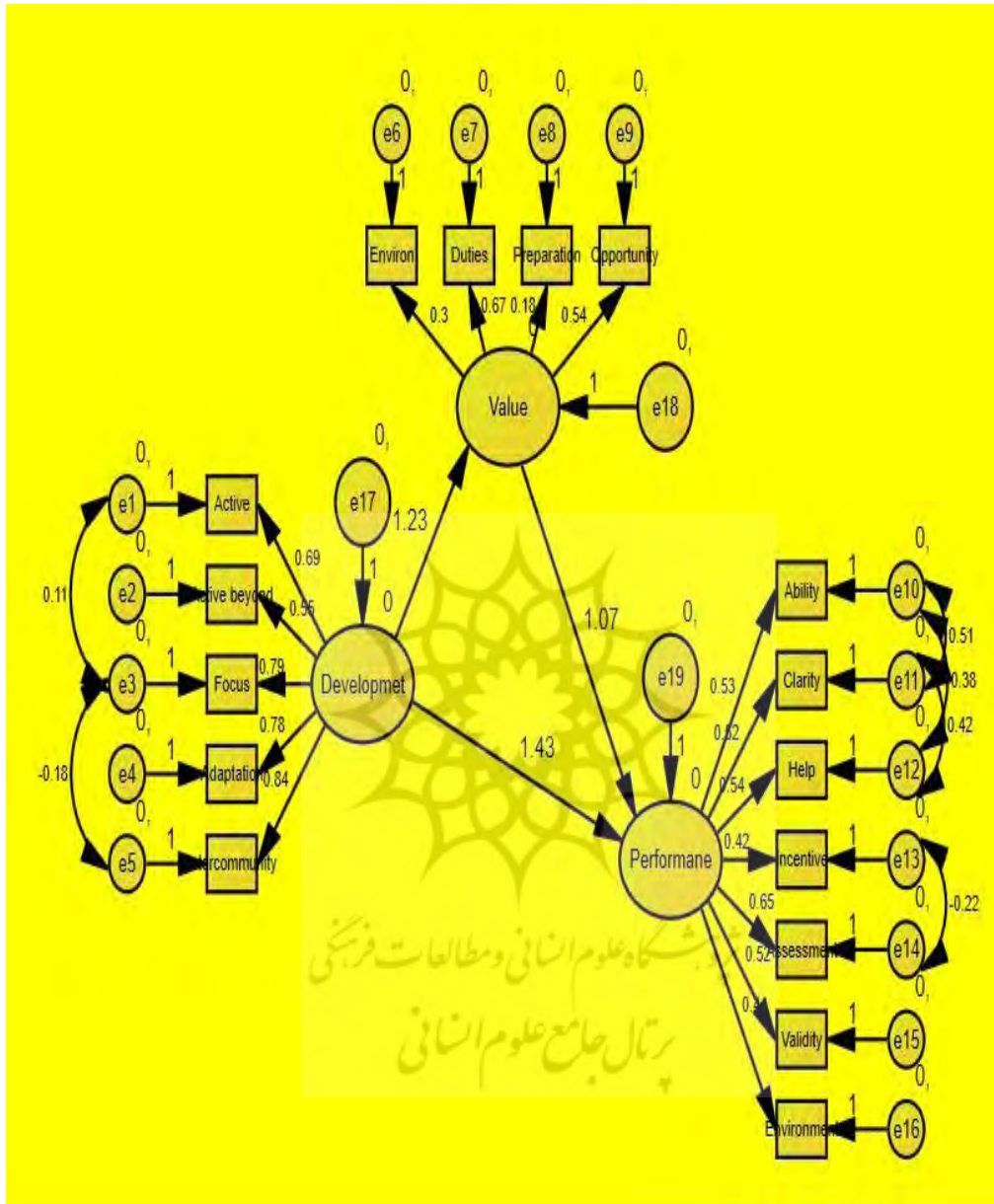


Figure 6. Structural model of research hypotheses (study results)

Table 10. Standard path coefficients of the structural model

Variables		Estimate	T-Statistic	P-Value
Development	→ Value	1.231	9.766	0.000*
Development	→ Performance	1.432	11.241	0.000*
Value	→ Performance	1.071	8.953	0.000*
Compliance	→ Development	0.780		0.000*
Focus	→ Development	0.785	16.504	0.000*
Beyond	→ Development	0.554	10.949	0.000*
Active	→ Development	0.691	14.130	0.000*
Participation	→ Development	0.840	18.042	0.000*
Workplace	→ Value	0.303		0.000*
Tasks	→ Value	0.669	9.659	0.000*
Preparation	→ Value	0.176	6.815	0.000*
Opportunity	→ Value	0.537	9.602	0.000*
Ability	→ Performance	0.531		0.000*
Clarity	→ Performance	0.520	17.254	0.000*
Help	→ Performance	0.537	15.779	0.000*
Incentive	→ Performance	0.421	9.205	0.000*
Evaluation	→ Performance	0.649	12.389	0.000*
Credibility	→ Performance	0.522	11.436	0.000*
Setting	→ Performance	0.444	10.601	0.000*

*significance at the level of 0.05

Testing research hypotheses

1. Professional development affects job performance of Babol high school teachers.

As shown in Table 10, standard regression coefficient of professional development and job performance is equal to 1.432. According to the t-statistic and P-value corresponding, it can be said that professional development has a significant effect on job performance of Babol high school teachers and therefore H1 is confirmed.

2. Professional development affects job values of Babol high school teachers.

As shown in Table 10, standard regression coefficient of professional development and job value is equal to 1.231, which according to the t-statistic and P-value corresponding, it can be said that professional development has a

significant effect on job values of Babol high school teachers, and therefore H2 is confirmed.

3. Job values of teachers have an effect on job performance of Babol high school teachers.

As shown in Table 10, standard regression coefficient of job value and job performance is equal to 1.071, which according to the t-statistic and P-value corresponding, it can be said that job values have a significant effect on job performance of Babol high school teachers, and therefore H3 is confirmed.

4. Professional development of teachers through their job values has an indirect effect on job performance of Babol high school teachers.

As shown in Figure 6, standard regression coefficient of professional development and job value as a mediating variable is equal to 1.231 and

1.071 for job values to performance as the main dependent variable. As a result, regression coefficient of professional development through job values will be equal to 1.32 indirectly. In other words, it can be said that professional development of teachers has an effect on teachers' job performance both directly and indirectly through job values, and therefore H4 is confirmed.

Discussion and conclusion

H1: The results of the present study showed that professional development has a significant effect on job performance of Babol high school teachers, which can be considered as a predictive variable for job performance. It can be concluded as shown in Figure 6 and Tables 7, 9 and 10. Confirming the effect of professional development on job performance of Babol high school teachers is consistent with the study results of Hosseinpoor et al. In their study, they investigated the relationship between job performance and self-efficacy, and professional development of secondary school teachers in Qom and concluded that a significant relationship is between job performance and self-efficacy of secondary school teachers in Qom and their professional development (Hosseinpoor et al., 2020).

H2: The results of the present study showed that professional development has a significant effect on job values of Babol high school teachers, which can be considered as a predictive variable for job values. This can be concluded as shown in Figure 6 and Tables 7, 9 and 10. Confirming the effect of professional development on job values of Babol high school teachers is consistent with the study results of Rastegar et al. In their study, they concluded that the necessary condition for a person to be efficient and effective

in an organization is to align his values are with the values of the organization (Rastegar et al., 2017).

H3: The results of the present study showed that teachers' job values have a significant effect on job performance of Babol high school teachers, which can be considered as a predictive variable for job performance. This can be concluded as shown in at Figure 6 and Tables 7, 9 and 10, which is consistent with the study results of Fani et al. on the definition and interpretation of job performance. They showed that the model of Jihadi culture's effect on job performance with the mediation of organizational justice and social capital was significant and had statistical fit (Fani et al., 2022). It is also consistent with the study results of Khorrammanesh. He has predicted job performance based on citizenship behavior and general health of school principals and has concluded that citizenship behavior dimensions are significant predictors of school principals' job performance (Khorrammanesh, 2022).

H4: The results of the present study showed that professional development of teachers both directly and through teachers' job values has a significant effect on their job performance in Babol high schools, which can be considered as a predictive variable for job performance. This can be concluded as shown in Figure 6 and Table 10. Confirming the effect of professional development of teachers on their job values in high schools of Babol city is consistent with the study results of Amiri. In a study, he investigated the relationship between professional development and academic performance and concluded that a positive and significant relationship is

between professional development of teachers and academic performance of students in connection with school, and connection with school and academic performance of students; and connection with the school has played a mediating role in the relationship between professional development of teachers and academic performance of students (Amiri, 2021).

In this regard, it is suggested that the education authorities provide the professional development of teachers and remove the existing legal and financial obstacles to improve both teachers' job performance and their job values. For this purpose, it is necessary to provide the basis for the development of teachers' skills, as well as to create and increase the motivation and self-confidence of teachers and the adaptation of teachers to the school environment. Considering that professional development and increasing the knowledge and skills of teachers is the prelude and prerequisite for success in education, so new approaches to professional development emphasize life-long learning. organized educational workshops and scientific seminars for them so that we can witness the improvement of their job performance and increase their job values along with the professional development of teachers. Sending teachers to national and international scientific conferences can cause their professional development and thus improve their job performance.

Ethical considerations

During the implementation of this research and the preparation of the article, all national laws and principles of professional ethics related to the subject of research, including the rights of statistical community, organizations and institutions, as well as authors and writers have been observed. Adherence to the principles of research ethics in the present study was observed and consent forms were consciously completed by all statistical community.

Sponsorship

The present study was funded by the authors of the article.

Conflict of interest

According to the authors of the present article, there was no conflict of interest.

This article has not been previously published in any journal, whether domestic or foreign, and has been sent to the Journal of School Administration Quarterly for review and publication only.

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