



(Original Article)

Identifying the Components and Factors Affecting the Professional Ethics of Teachers

Fatemeh Asadi, Rasoul Davoudi*, Noraldin Mirzaee

Dept. of Educational Management, Zanjan Branch, Islamic Azad University, Zanjan, Iran

Abstract

Background: The aim of this study was to identify the components and factors affecting teachers' professional ethics and provide a model.

Method: The method of the present study was mixed (qualitative-quantitative) and in terms of purpose it was applicable research. The statistical population in the qualitative section included faculty member (disciplines of philosophy, sociology and education) and teachers who were theoretically familiar with the concept of professional ethics and therefore their selection was purposeful by sampling method. 20 people were interviewed until they reached theoretical saturation. Data was analyzed at three levels of open, central and selective coding. Validity of data assessed by ideas of experts and for reliability, the coefficient of agreement between the coders was used, which was 0.81. In the quantitative part, the statistical population was all primary school teachers in Tehran (7515) in the academic year 2018-2019, which according to Krejcie and Morgan table, 367 people were selected as the sample size by multi-stage cluster sampling method. The research tool was a researcher-made questionnaire. Reliability of which was obtained by Cronbach's alpha test of 0.85 Data were analyzed by SPSS, Lisrel and Amos softwares.

Results: The findings showed that the components of professional ethics included "psychological characteristics", "communication-social characteristics", "technical-specialized characteristics" and "belief characteristics" and the effective factors included four factors: economic, social, organizational and individual. Quantitative results also showed that the professional ethics model can be predicted up to about 0.70 by the identified factors and the overall fit of the model was also confirmed ($GOF = 0.44$).

Conclusion: Considering the predictive power of the identified factors for professional ethics, it can be concluded that the proposed model can be a good framework for improving the professional ethics of teachers.

Keywords: Ethics, Professional ethics, Teachers, Education system

* Corresponding Author: Email: rasolrd@yahoo.com

Received: 7 Nov 2020

Accepted: 1 Dec 2020

Introduction

One of the main concerns of efficient managers at different levels is how to create a suitable environment for human factors working in all professions so that they deal with the issues of society and their profession with a sense of responsibility and commitment and observe the ethical principles governing it (1). A brief look at today's issues and problems shows that today, with the increasing complexity of organizations and the increase in the amount of unethical work in the workplace, the concept of ethics and ethical management has become increasingly important to managers and experts (2).

Ethics is a complex structure and one of the most challenging concepts. In a division, the fields of ethics can be divided into three sections: descriptive ethics, which describes and introduces the ethics of different individuals, groups and societies (3). Normative ethics, which examines human voluntary actions (4) and applied ethics, which deals with specific and important theoretical issues of environmental issues, genocide, and weapons of mass destruction (5).

Professional ethics is also a part of applied ethics that deals with ethical issues in the profession (6). The results of studies indicate that failure to pay attention to the principles of professional ethics by managers and employees in the organization can lead the organization to failure and lead to its collapse (7).

There are usually two main approaches to defining professional ethics. In the first approach, which is the traditional approach, professional ethics is considered as the ethics of work or occupations. That is, professional ethics is the expression of the principles, rules and ethical rules that each person must follow according to the requirements of his job. In fact, professional ethics is a set of principles and standards of human behavior that determine the behavior of individuals and groups in a professional structure and its concept is derived from ethics. In other words, a set of ethical rules derived from the nature of a profession or occupation is called professional ethics (8). But in the second approach, the strategic management approach to professional

ethics, which has become popular in recent decades, focuses on the responsibility of the organization with a systemic approach. Therefore, what is considered in this approach is not only the moral responsibilities of people working in a particular job or profession, but also the moral responsibilities of the institution or organization under which different people are working (9). Accordingly, professional ethics governs the behavior and attitude towards employees within the class and even with people outside the class (10).

A researcher considers professional ethics to have four dimensions: attachment and interest in work, perseverance and seriousness at work, healthy and humane relationships in the workplace, and collective spirit and participation in work (11). A study also considers characteristics such as responsibility, superiority and competitiveness, respect for others, observance and respect for social values and norms, justice and fairness, empathy with others and loyalty as important components of professional ethics (12). A research also considers the components of professional ethics into five categories: distributive justice, respect for employees' rights, utilitarianism, importance and attention to employees, and work conscience as elements of professional ethics (13). The American Teachers Association also divides teachers' codes of professional ethics into four areas: dealing with students, treating co-workers, treating parents and the community, performing activities, and their related performance (14).

In the existing studies, researchers have studied professional ethics from the perspective of multivariate relationships, while the conceptual understanding of professional ethics, its components and factors affecting it has been less considered. A researcher in a study entitled evaluation of professional ethics of employees of Tehran dispute resolution councils concluded that there is a significant relationship between professional ethics of employees and business identity variables and individual variables (education and age) (15). Researchers in a study entitled improving the professional ethics of teachers in the educational system, concluded that the observance of educational ethics guarantees the

health of the teaching-learning process in education and increases teachers' commitment to respond to students' needs (16). Another study concluded that the level of satisfaction of female students with the professional ethics of university faculty members is higher than the level of satisfaction of male students (17). Researchers in a study concluded that there is a significant relationship between professional ethics and administrative discipline among primary school teachers in Zahedan and professional ethics increases administrative discipline among teachers (18). Researchers in another study concluded that individual factor, organizational structure, technology, servant leadership, religious and socio-cultural influence on the effectiveness of teachers' professional ethics (19). A study concluded in a study that the professional ethics of primary school teachers include seven basic components of honesty, justice, responsibility, preservation of human dignity, respect, lawfulness and loyalty (20). Researcher in a study receiving the moral level of boys' school teachers is higher than the moral level of girls' school teachers (21). In a study, scientists found that interpersonal skills, crisis management, resource management, and knowledge of educational regulations are among the priorities of the professional ethics program (22). A researcher concluded in a study that the three main dimensions of school principals' professional ethics are principals' focus on group participation, focus on organizational policy, and focus on insight and self-awareness (23). Others also concluded in a study that the observance of ethics by the seller has a positive effect on increasing customer trust in the seller (24).

Although professional ethics is more ancient in industrial and manufacturing organizations, but in recent years, professional ethics in educational management has also been considered. Teachers deal with the issue of ethics and professional ethics in different ways. Managers' day-to-day decisions such as division of labor and organization, use of technology, scoring, judging people's behavior and encouraging and punishing the thoughts, personality and behavior of employees, especially students, have a positive or negative effect if teachers adhere to professional ethics. Otherwise, it brings filth and ugliness to the whole society (25). The results show

that teacher professional ethics is an important component in teacher learning and improving the teaching process in the classroom and is considered as a competitive element (26) and the development of teachers' professional ethics provides the skills and knowledge needed to meet the educational challenges of the 21st century. (27).

The existence of professional ethics at various levels of education and upbringing is one of the necessities that has been neglected in our educational system. In the educational system of the country, every day we see the preparation of upstream documents and various national directives and plans that are done to create a suitable platform to achieve moral goals, but the facts show that efforts have been made. At different levels of education and upbringing, it is often carried out to the extent of instructions or in a dramatic way without quality and the principle of paying attention to the content and goals and sometimes far from the intended goals, which leads to the failure of projects.

What justifies the need for the present study is that teachers, as an educated class, deal with millions of students, and if the professional ethics of teachers is weak, it is not unreasonable to expect that many social and psychological harms will affect the education system, families and students. On the other hand, the creation of educational justice by the teacher and non-discrimination in education is only one example of professional ethics, which in the event of a defect in professional ethics can lead to injustice and frustration of students. Therefore, the scope and importance of professional ethics will become beyond the teacher himself and to a large part of the country in the short and long term. Therefore, understanding professional ethics and the factors affecting it is an undeniable necessity. The novelty of the research is that the present study is methodologically integrated, which can lead to more credible and reliable results, and also tries to ultimately provide a model of professional ethics in accordance with indigenous culture.

With regard to the above, the main purpose of this study is to identify the most important indicators and components of teachers' professional ethics and the factors affecting it and to provide a model

for the development of professional ethics of teachers in the first secondary school in Tehran.

Material and Methods

The method of the present study was mixed (qualitative-quantitative) and applied in terms of research purpose. The statistical population in the qualitative section included university professors (disciplines of philosophy, sociology and education) and teachers who were theoretically familiar with the concept of professional ethics and therefore their selection was based on purposeful sampling. 20 people were interviewed to identify the components and factors affecting professional ethics. It should be noted that up to 17 interviews the data reached saturation, but for more certainty it continued up to 20. All interviews were analyzed at three levels of open, axial and selective coding. The views of the participants and relevant experts were used to validate the findings. For coding reliability, 4 interviews were randomly selected and re-coded with an agreement coefficient of 0.81.

In a small part of the statistical population, all teachers in the first secondary schools of Tehran in the academic year 1397-98 (7515 people) that the sample size was 367 people based on Morgan table and were determined by multi-stage cluster sampling. It

should be noted that in order to prevent the possible fall of the sample, 380 questionnaires were distributed and in the end, with 15 cases being distorted, 365 questionnaires had the conditions of analysis.

This questionnaire has two parts, in the first part the components of professional ethics with 8 components (psychological, behavioral, communication, altruism, specialization and competencies of teachers, administration, religious norms and value norms) and 66 items. In the second part, the factors affecting professional ethics included 4 factors (individual, economic factors, socio-cultural factors and organizational factors) and 51 items that were scored in the form of a 5 Likert scale from very low to very high. The reliability of the questionnaire was obtained through two methods of combined reliability and Cronbach's alpha test (0.85). To analyze the data, descriptive statistics with SPSS software version 22 and inferential statistics (structural equations) with Lisrel and Amos software version 20 were used.

Results

Table 1 presents the triple coding process of open, central, and selective professional ethics from the perspective of experts.

Table1: Process of open, axial and selective coding of professional ethics

Open coding	Axial coding	Selective coding
Understand the feelings of others Attention to students' psychological differences Positive thinking Inner motivation of the teacher Individual differences of students Resilience Loving the student Motivation towards educational environment	Mental morality of teacher	Behavioral-mental factors of teacher
Fit and well-groomed appearance Attention to the language of behavior Be polite in dealing with others Observance of justice	Behavioral morality of teacher	
Attention to the demands of colleagues Take the lead in helping others Acceptance of cultural diversity Sacrifice and forgiveness	Altruism	Social-communicational factors
Healthy and constructive communication with students Respectful and logical relationships	Communicational	

Preservation of human dignity in relationships Having a spirit of criticism Strong communication skills Team work		
Perform the assigned tasks correctly Observe the rules and regulations Proper use of resources Familiar with workplace rules Observance of educational standards Preference of organizational interests over individual interests	Administrative	Professional-technical factors
Mastery of teaching principles Familiarity with different software in teaching Professional discipline Continuous participation in the in-service course Teacher efficiency Specialization in education	Competencies	
Commitment and expertise responsibility Observance of work conscience Adherence to organizational principles Observance of fidelity Observance of halal and haram	Religious norms	Belief factors
Belief in the resurrection Belief in moral principles Observing the rule of the Qur'an and religious values God oversees things Understanding nature and the laws that govern it	Religious values	

In the continuation of coding, all the central codes were examined in terms of commonalities and differences between them. "Technical-specialized" with administrative components - expertise and

competencies of the teacher and "belief characteristics" with components of religious norms and values (Table 2).

Table2: Effective factors on professional ethics in viewpoint of participants

Axial code	Basic code	Axial code	Basic code
Individual factors	Usefulness Gender Age Decision making Interest to job Being up to date scientifically Individual creativity Liveliness and freshness	Cultural-social factors	Promoting the appropriate social status of the teacher Appreciation of teachers Teacher participation in social affairs Social Security Pay attention to the value of the teacher's work Attention to teachers' social problems Institutionalizing genuine cultural and national values Strengthen teacher culture
Economic factors	Providing financial needs Implement a ranking plan Increase salaries and benefits Improving the quality of life of the teacher	Organizational factors	Specialization of training work Empowering teachers Upgrading the quality of in-service training Increasing the quality level of schools Pay attention to the competencies of teachers No discrimination between teachers See the teacher's efforts Select the right managers Meritocracy

Structural equation modeling using partial least squares method and Smart PLS software were used to study the professional ethics model. It should be noted that this software was used because the data

distribution was not normal. Three criteria of reliability (factor loads, Cronbach's alpha and composite reliability), convergent validity and divergent validity were used to fit the measurement models. Tables (3-5) show the fit of measurement models.

Table 3: Factor loading coefficients of measurement models

variable	Components	Factor loading	t	Sig.
Effective factors on professional ethics	Economic	0/866	30/743	0/01
	Social	0/681	9/230	0/01
	Organizational	0/738	13/226	0/01
	Individual	0/778	17/208	0/01
Psychological characteristics	Behavioral	0/964	114/964	0/01
	Mental	0/963	104/957	0/01
Social-communicational characteristics	Communication	0/930	47/184	0/01
	Altruism	0/941	83/900	0/01
Professional-technical characteristics	Administrative	0/905	33/752	0/01
	Competence	0/932	92/849	0/01
Belief Characteristics	Religious values	0/898	34/533	0/01
	Religious norms	0/925	70/220	0/01

Table 3 shows that all factor load coefficients are significant ($P < 0.01$) and greater than 0.4, which

indicates the appropriateness of the measurement models used in the research model.

Table 4: AVE values (mean extracted variance) and reliability indices

Variable	AVE (>0.5)	CR (>0.6)	Cronbach alpha (>0.7)
Factors effecting PE	0/591	0/851	0/767
PE indicators of teachers	0/744	0/959	0/950
Psychological	0/928	0/963	0/923
Social-communicational	0/875	0/933	0/857
Professional-technical	0/844	0/915	0/817
Belief	0/831	0/908	0/797

The results of Table 4 show that all model structures are larger than the combined reliability greater than 0.6. Cronbach's alpha value is also

higher than 0.7, which indicates acceptable reliability. The mean criterion of variance extracted is also greater than 0.5, which indicates acceptable convergent validity.

Table 5: Fornell-Larcker matrices to examine divergent validity

variables	1	2	3	4	5	6
Social-communicational	0/935					
Belief	0/797	0/911				
Psychological	0/857	0/746	0/963			
Professional-technical	0/920	0/902	0/928	0/862		
PE indicators of teachers	0/648	0/607	0/658	0/695	0/769	
Factors effecting PE	0/822	0/817	0/815	0/732	0/658	0/919

The results of Table 5 show that the measurement models of the structural equation model of the research have the ability to measure the hidden variables of the research in a desirable way. Therefore, the fit of the structural model of the research is investigated.

The first criterion for examining the fit of the structural model is the coefficients R^2 related to the endogenous (dependent) variables of the model. R^2 is a measure that shows the effect of an exogenous variable on an endogenous variable and three values of 0.19, 0.33 and 0.67 are considered as the criterion values for weak, medium and strong values, respectively. The second criterion for examining the fit of the structural model of the research is the Q^2 values of the endogenous variables of the model. This criterion determines the predictive power of the model. Each of the three values of 0.02, 0.15 and 0.35 for this criterion have been introduced as indicating weak, medium and strong predictive power for the relevant structure, respectively. According to the results of table 6, the values of Q^2 for all endogenous variables are

more than 0.35, which indicates the strong predictive power of the model and confirms the proper fit of the structural model of the research.

Table 6: Results of R^2 and Q^2

Variables	R^2	Q^2
PE indicators of teachers	0/483	0/323
Psychological	0/860	0/759
Social-communicational	0/884	0/737
Professional-technical	0/868	0/695
Belief	0/814	0/642

Finally, after examining the fit of the measurement models and the structural model, the general model of the structural equations of the research was evaluated using the goodness of fit (GOF) criterion. This index considers both measurement and structural models and is used as a measure of the overall performance of the model. The three values of 0.01, 0.25 and 0.36 are considered as weak, medium and strong values for GOF, respectively, considering that the value obtained for the research model is 0.44, the appropriate fit of the general research model is confirmed.

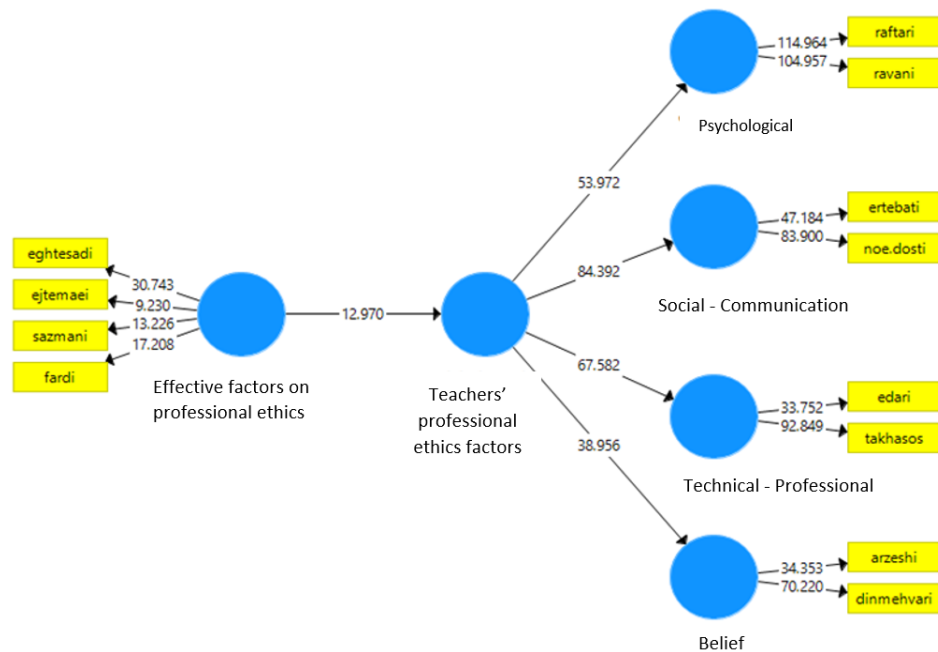


Fig. 1: The main model in the case of significant numbers (t-value)

The numbers on the paths indicate the t-value for each path. To check the significance of the path coefficients, it is necessary for the value of t of each path to be higher than 1.96. In this analysis, the value of t-statistic for all routes is higher than 1.96 and as a result are significant at the confidence level of 0.95.

Table 7: Direct path coefficients between the factors affecting professional ethics with the indicators of teachers' professional ethics

Path		β	t	Sig.
Factors effecting PE	→ PE indicators of teacher	0/695	12/970	0/01

According to the results of Table (7), the path coefficient related to the effect of factors affecting professional ethics on the indicators of professional ethics of teachers is equal to 0.695 and is significant at the alpha level of 0.01 ($p < 0.01$). Therefore, it can be said that the identified effective factors can predict about 0.70% of the changes in the criterion variable, ie teachers' professional ethics.

Discussion

Today, more than ever, the importance of professional ethics in organizations has been considered. This importance is due to the relationship between professional ethics and the performance of organizations and productivity in general. To understand professional ethics, it is very important to know the components and factors involved in it. The aim of this study was to identify the dimensions, components and factors affecting teachers' professional ethics. The effective factors also included four factors: economic, social, organizational and individual. The quantitative results of the research also showed that the professional ethics model can be predicted up to about 0.70 by the identified factors and the overall fit of the model was also confirmed ($GOF = 0.44$).

The findings of this study are consistent with some of the results of the following studies: A researcher in a study concluded that individual variables are

effective in professional ethics that one of the main components of the present study was attention to individual factors (15). Researchers concluded in a study that the professional ethics of teachers improves the quality of the teaching-learning process, which was presented in the present study with the component of teacher technical expertise (16). A researcher had concluded in a study that professional ethics is related to individual characteristics such as gender. In the present study, individual factors and below that gender was one of the components of professional ethics (17). Another study found that socio-cultural factors affect the effectiveness of teachers' professional ethics. These findings were identified in the present study as one of the main themes and factors affecting professional ethics (19). Researchers who concluded that the main components of teachers' professional ethics including honesty, justice, responsibility, preservation of human dignity, respect, legitimacy and loyalty. The responsibility and dignity of the teacher is consistent (20). Another research also concluded that gender is an effective factor in professional ethics, which in the present study also paid attention to individual factors such as gender (21). Researchers concluded that interpersonal skills and organizational skills are important factors of professional ethics that should be given priority (22). They also concluded that the three main dimensions of professional ethics of school principals are group participation, focus on organizational policy and focus on insight and self-awareness, which in the present study, the characteristics of belief and insight confirmed the importance of these elements (23).

As shown, the results of the present study were consistent with some of the results of existing research. But something that is not mentioned in the existing literature; However, in the present study, economic factors were identified as one of the effective factors on professional ethics. In this case, it can be said that today livelihood and economic life are not separate from other pillars of life such as ethics, culture and politics. Perhaps one of the reasons for the existence of economic factors with

financial indicators in the present study from the perspective of experts is the issue of teachers' livelihood, which has been considered as one of the major challenges of the education system for many years and still no sustainable solution has been implemented. Therefore, it can be said that economic factors can also be effective in the field of professional conduct. When teachers face a livelihood problem, they may turn to private classes and entrance exams and not show the quality of their education in school, or disregard educational justice in the classroom, or turn to other occupations, all of which can be detrimental to professional ethics. Therefore, in dealing with professional ethics, the material angles of employees should also be considered.

The results of the research have limited generalizability in the sense that it was conducted at a limited geographical level and is not the view of the entire community of teachers in the country, and the results should be viewed with caution. Another limitation was not studying the gender and measuring the current level of teachers' professional ethics, which was not possible due to the researcher's time and facilities. It is suggested that researchers evaluate the level of professional ethics in future studies and also study gender. The results showed that economic factors have a great impact on the professional ethics of teachers, so it is suggested that the living conditions of teachers should be such that they do not need other sub-jobs to use professional and job competencies in their main job. Another suggestion is that, like other guilds, the code of professional ethics should be implemented in the education system as a guarantor and norm of professional ethics.

Conclusion

It can be concluded that professional ethics is a structure with various psychological, social, professional and doctrinal components that is influenced by economic, social, organizational and individual factors and the economic factor has a greater impact on the professional ethics of teachers.

Ethical Consideration

In order to comply with the research ethic, the purpose of the research was first explained to the participants and they were assured that the findings are only for research work that has no other use and can be removed whenever the participants do not want to continue the interviews.

Acknowledgement

The authors of the article thank all the teachers and directors of education in Tehran who provided the ground for cooperation in research.

References

1. Cowton CJ (2019). Putting creditors in their rightful place: corporate governance and business ethics in the light of limited liability. *J. Bus. Ethics*, 102(1):21–32.
2. Todorovic Z (2018). Application of ethics in the accounting profession with an overview of the banking sector. *Journal of Central Banking Theory and Practice*, 7(3):139-158.
3. Hernandez M, Eberly MB, Avolio BJ, Johnson MD (2012). The loci and mechanisms of leadership: exploring a more comprehensive view of leadership theory. *The Leadership Quarterly*, 2(6):1165-1185.
4. Saeedi Gorghani M (2011). Professional ethics in business. *Auditor Bimonthly*, 56. (In Persian)
5. Oldenburg CK (2013). Student perceptions of ethical dilemmas involving professor. *College Student Journal*, 39(5):129-141.
6. Hedayati AA, Borjalizadeh R, Allah Badashti N (2011). Professional ethics in religious teachings. *Journal of Medical History*, 3(8): 37-63. (In Persian)
7. Huntly H (2008). Teachers' work: Beginning teachers' conceptions of competence. *The Australian Educational Researcher*, 35(1):125-1.
8. Arasteh HR, Jahed HA (2011). Ethics in universities and higher education institutions: a fitted option for improving behaviors. *Science Cultivation Journal*, 1(2): 31-34. (In Persian)
9. Anabestani M, Saeedikia M (2016). *Professional ethics*. Tehran: Kia Publications. (In Persian)
10. Hebenstreit G, Marics A, Hlavac J (2018). *Professional ethics and professional conduct. Handbook for Interpreters in Asylum Procedures*. UNHCR Publication, Austria. P. 72.

11. Kameli MJ, Zabet MR, Mohebbi K (2015). The relationship between job ethics and job performance of employees in Abhar Healthcare Network. *Development Quarterly*, 10(36):17-34. (In Persian).
12. Cadozier V (2002). *The moral profession: A study of moral development and professional ethics of faculty*. University of Texas, USA.
13. Simmons J (2008). Ethics and morality in human resource management. *Social Responsibility Journal*, 4(1/2):8-23.
14. Kafi Z, Motallebzadeh K, Ashraf H (2018). University instructors' teaching experience and their perception of professional ethics: postulating a model. *International Journal of Instruction*, 11(4): 257-270. (In Persian).
15. Sadeghi E (2020). Evaluation of professional ethics of Tehran dispute resolution council's staff. 7th National Conference on New Research and Studies in Humanities, Management and Entrepreneurship of Iran, Tehran/ Iran. (In Persian)
16. Sohrabi S, Karimi MS (2020). Improving the professional ethics of teachers in educational systems. *Islamic Studies Research*, 2(11): 29-19
17. Eskandari K (2018). Analysis the level of students' satisfaction with the faculty members' professional ethics (case study: Payam-e-Noor University). *Journal of Higher Education Letter*, 43(33): 93-125. (In Persian)
18. Rahmatzahi K, Afrooz T, Shahraki F, Assadollahzadeh A (2015). Relationship between professional ethics and administrative discipline among primary school teachers in Zahedan. International Conference on Management, Accounting, Banking and Economics on the Horizon of Iran, Mashhad/ Iran. (In Persian)
19. Davoodi A, Bahadori S (2016). Determining affecting factors on efficiency of professional ethics from the viewpoint of teachers of Qom province. *Journal of New Approaches in Educational Administration*, 8(31):186-165.(In Persian)
20. Mir Kamali SM (2015). *Educational management culture*. Yastaroon Publication, Tehran. (In Persian)
21. Thoker AA (2017). Professional ethics of secondary school teachers in relation to their gender: A comparative study. *International Journal of Advanced Educational Research*, 2(6):350-355.
22. Ng SW, Chan T (2014). Continuing professional development for middle leaders in primary schools in Hong Kong. *Journal of Educational Administration*, 52(6):869-886.
23. Militello M, Fusarelli B, Alsbury T, Warren P (2013). How professional standards guide practice for school principals. *International Journal of Educational Management*, 27(1):74-90.
24. Chen SY (2009). Identifying and prioritizing critical intellectual capital for e-learning companies. *European Business Review*, 21(5):438-452.
25. Shakeri A (2016). Professional ethics in educational management and educational organizations. 1st International Conference on Management & Innovation, Tehran/ Iran. (In Persian)
26. Zinger D, Kang H (2019). What do core practices offer in preparing novice science teachers for equitable instruction? *Science Education*, 103(4):823-853.
27. Sprott RA (2019). Factors that foster and deter advanced teachers' professional development. *Teaching and Teacher Education*, 77(8):321-331.