
Analyzing and Validating the Competences of the Teachers Profession based on the Model

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Abstract: One of the issues that has been addressed in recent years is the existence of a mechanism for determining and assessing the professional qualifications of teachers who have paid more attention to this in developed countries and have been able to make and develop their own educational system models. To make in our country, this has also been highlighted in recent years, and its underlying work has been somewhat done. In this regard, this research has been conducted with the aim of analyzing and validating the model of professional competencies based on the Huntly model. The statistical population is all teachers working in Isfahan province. Using Cochran's formula, 345 people were selected as a statistical sample and selected randomly. The data gathering tool was a Delphi method and a researcher-made questionnaire. The validity of the questionnaire was content validity and reviewed by five experts and professors. The reliability of the questionnaire was also evaluated using Cronbach's alpha test. The results show that the alpha coefficient is more than 0.7, so the questionnaire has an appropriate reliability. Data analysis was performed using Smart PLS and SPSS20 software. The results show that professional knowledge, professional practice, and professional commitment are highly valued as a component of the professional competences of teachers in Isfahan province.

Keywords: Professional Competencies of Teachers, Professional Knowledge, Professional Practice, Professional Commitment

INTRODUCTION

In the history of education in Iran, teachers after the recruitment, in spite of all the shortcomings of the employment system, have gone to the classroom less than their qualifications from professional and specialized dimensions and human relationships, and only short-term training is based on changing the contents of some books or long-term education during service with bulky educational content is inefficient and inappropriate to the needs of students, which, over time, have inadequate knowledge and initial learning, are repeated every year through repeated methods and ways continue teaching (Shabani, 1383).

The present age has been challenged by complex and highly complex issues in society, how it works, communicating with others, and how we learn. The main factor in this change is the increasing role of information and knowledge. Information society, knowledge society and society. Learning is a term for introducing this course. Learning is the main factor in the relationship between society and knowledge. Despite the importance of the production and distribution of knowledge, knowledge during the transition has an expiration date that influences professional development and teacher training. Socio-economic, social and cultural changes not only affect the world around the teacher, but also change the students, the teacher and the tools and tools used to teach. At the present time, teachers should re-create their knowledge of ongoing changes in the learning process of learning (Vaillant, 2007).

On the other hand, profound changes in the structure, curriculum and student population have created a crisis in the professional identity of teachers. The lack of relevant qualifications to deal with this new situation has led many teachers to see their professional identity as a bottleneck, so the professional identity of teachers is in urgent need of rebuilding (Moreno, 2007).

Because teachers play a key role in the development of education. The most important factor is the quality of action and reactions that occur between teachers and students. The elements of this interaction, knowledge, skill and sensitivity of the teacher on the one hand, and learning expectations, economic and social status, and

cultural characteristics of learners on the other determine the success or failure of education. Therefore, the most important and most suitable person for the teaching profession is the most important issue (Rowuf, 2000).

Also, the professionalization of teachers is focused on the technical and vocational aspects of teaching and promoting the social status of teacher training. Professionalization is a process by which a profession or occupation requires special skills. A professional teacher should have a deeper understanding of content knowledge, child development, learning styles, teaching strategies, and a new set of values, along with respect for individual differences, collaboration with colleagues, and continuous feedback from teaching, and the ability to guide and change have an effective relationship. New approaches to teachers' continuing education and training, based on the development of the concept of a systemic approach to education, the consideration of teaching as a vocational activity and policies supporting professional development, has developed and is the training of the continuing need for teachers' professional life (Vaillant, 2007).

Injury and barriers in relation to the teacher's choice and attraction, the status, the status and responsibilities of the teacher, the maintenance, promotion and welfare of the teacher, the level of the teacher's professional level, and in-service training are:

- Lack of principled policies to maintain, maintain and enhance the quality and career of human resources, including teachers in education
- Selection and recruitment of weak and unprofessional forces, even in some cases inappropriately through the teacher's soldier, the right to teaching and...
- The weakness of teachers in professional skills and new teaching methods
- Low level of scientific and professionalism in the management and leadership of the classroom
- Lack of continuous education and lack of suitable background for continuous learning and exchange of information and experiences with colleagues.
- Resistance to new educational methods due to lack of necessary training (Safi, 2006).

Teachers and educators have expressed different views on the notion of competency and the skills of teachers' vocabulary, which emerged from the mid-twentieth century in the educational system. Including Heierman and Boehman (2005) referred to components, and Wilgas and Riemers (2007) also considered the role of teacher professional skills in changing the educational system, and in this regard, components of "new teaching, Educational Technology and Currency Bidding ". It is believed that the ability to learn and exchange curricula and the use of a teacher from the curriculum of educational technology support curriculum.

According to Marashi's (1998), these skills include teachers' awareness of "teaching, organizing and conducting classes, counseling and guidance, and student exchange rates," as well as relying on practical skills and abilities of the teacher in a learning process such as skill In the preparation of the project, the implementation of new teaching methods, educational design, and Shabani, Norouzi and Aghazadeh also believe in the familiarity of teachers and curriculum vendors as components of teacher skills. Therefore, by examining theories of experts, a combination of theories but it is important to note that these concepts are related to the concept of an effective teacher (Mehmohammadi, 2000).

One of the issues that has been addressed in recent years is the existence of a mechanism for determining and evaluating the professional qualifications of teachers who have paid more attention to this in developed countries and have been able to develop the models for their educational system to formulate. In our country, this has also been highlighted in recent years, and its underlying work has been somewhat done.

Due to the scientific and technical progress in the education sector and the changes that have taken place in the education process in all countries, it is necessary to revise and improve the teaching methods and standards in our country. One of the concerns in our country's education is that there is no proper model for professional and general teachers' qualifications. Unfortunately, there is no such model in the country, and teachers do not have a specific or basic standard to improve their skills. As a teacher in the educational system of the country, I am concerned about this concern not only by myself, but also by many teachers and carers of the educational system of the country, and in this research, we are trying to present a suitable model in this field. Therefore, the document on the fundamental transformation of education on the establishment of a system for assessing the general, specialized and professional qualifications, determining the criteria for evaluation and establishment of the payment system and based on the Islamic system of standards, the system of scientific and educational rating of teachers and strengthening the incentive to promote their career based on Expertise, competencies and competencies are emphasized. In this sense, in order to promote the status of the teacher in the country's executive system and the development and advancement of the Islamic Republic of Iran in general, and in particular its role in the promotion of Islam, it is necessary for the teacher to test the meritocracy system based on practical and competitive assessments. And appropriately tailored to the professional and professional competencies and individual and social competencies.

In this study, according to the Huntley model (2008), the model is used to assess the professional qualifications of teachers. Huntley's model does not fully describe the professional qualifications of teachers, but its overall dimensions are subject to nobility, and the components of each dimension are not complete and not comprehensive. Therefore, in this research, using experts' opinion, it is attempted to explore and identify the

components and indicators of each dimension in a more comprehensive way. On the other hand, considering that the researcher is teaching in Isfahan province and is more knowledgeable about the province, the intention of the researcher is to study the subject in this province. In this study, due to the shortcomings in this field and the feeling felt necessary to formulate such a model, we try to identify a professional qualification of teachers through interviews with experts and experts in this field, a model for professional qualifications Teachers are to be formulated and presented. Therefore, this research seeks to answer the question of which Huntley's professional competency model (2008) is valid and whether this model is a suitable model for teachers in Isfahan Province.

Research Method

The present research is based on how to obtain the required data and in terms of classification of research according to their purpose, in the field of applied research. In terms of the type of supervision and degree of control, this research is descriptive of research because the researcher examines the variables in their natural state.

In the quantitative stage, after the final model of the research in the qualitative section was identified and the components and indices of each component were determined, the final questionnaire consisted of 3 variables (main component of the model) and 80 items based on the Likert five choice spectrum and based on this final model of compilation and distributed among sample individuals and data.

Statistical population

The statistical population is a set of individuals or units that have at least one common trait. Common attribute is an attribute that is among all the elements of the statistical society of the society and distinguishes it from other societies (Azar, Momeni, 2004, p. 112).

Research Experts are individuals who have a master's degree for officials and a staff member of the Ministry of Education or a Ph.D. for professors in this field in reputable universities. They must also have a work experience of more than 10 years. By examining the target community and systematic screening, the number of people targeted was 17, including 7 officials and academic staff and 10 university professors. This description is presented in Table (1-3).

Table 3.1: Specifications of the Statistical Society (Research Experts)

Activity area	Number	Level of Education
Headquarters of education	7	Master of Science (MSc) and PHD
University professor (Isfahan University-Tehran-Ahvaz-Tarbiat Modares)	10	P.H.D

The statistical population in the quantitative section consists of all teachers working in the academic year of 2017-18 in Isfahan province. In the quantitative part, the Cochran sample size formula was used to determine the sample size. In the quantitative phase, the statistical population of the study was all teachers in Isfahan province. Using Cochran's formula, the sample size was determined and the samples were selected by multi-stage cluster sampling.

B) Determining the sample size

Since the statistical population in this study is unlimited, the volume of society is not known. Therefore, to calculate the sample size, the Cochran formula is used when the size of the society is unclear:

$$n \geq \frac{z^2 pq}{d^2}$$

In which, “Zα/2” represents the critical number of normal distribution at the α level. Considering that the reliability coefficient of the research is considered to be p = 0.95, therefore, α = 0.05 and α/2 = 0.025, respectively, and the critical number is Z α/2 = Z 0.025 = 1.96, is calculated. On the other hand, because p is a non-parametric parameter, its value is considered in this research by precautionary approach (05). Therefore, p × q = p (1-p) = 0.5 × 0.5 = 0.25 is calculated. (d) The accuracy of the estimate, or the maximum error, is considered to be 0.05 in this formula.

$$n \geq \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} \approx 345$$

So the sample size was estimated to be 345. A multi-stage cluster sampling method that first divided the province of Isfahan into five poles. 1. Centralized (6 areas of Isfahan-Najaf Abad-Khomeini city). 2. The north part of the city (Mimeh, Alavijeh, Shahin Shahr, Kashan) 3. The southwestern part (Mobarakeh-Shahreza-Semirom, Zarin Shahr, Foulad Shahr). 4. Western section (Tiran-Frieden-Fereidounshahr-Bouin-Chadegan). 5. Orient (Nayin-Khurobiabank, Ardestan).

Of these, 2 drawings were drawn from central and northern, and from among them, district 5 and Shahin-ye Shahr, each of which selected 10 elementary schools, which were selected equally among the teachers of these schools.

Methods and tools for data collection

The method of data collection in this study is carried out in two ways:

1) Library method:

The library method was used to collect the data and information about theoretical bases of research, explaining the variables and also the history of the research. In this research, theoretical foundations and research background were collected from the library, the article and the internet and used as deductive reasoning and in rejecting or substantiating research hypotheses by using appropriate statistical methods.

2) Field method:

In this section, an initial questionnaire was developed based on the Delphi technique, which was comprised of 3 components and included 90 questions. Initially, experts were asked to express their views on questions and components without prioritizing after the collection, experts' comments and a modified questionnaire.

The data gathering tool in this research is the Delphi Initial Questionnaire and the final questionnaire.

Validity and reliability of data collection tools

Measurement of validity and reliability of the instrument of measuring variables is a fundamental step in the measurement. In other words, measuring the validity and reliability of measuring instruments are two important criteria for assuring them. The validity of this is that the instrument of measurement for the intended purpose is to measure the variable of the research to be effective. Reliability also means reliability, stability, consistency, predictability, accuracy, or accuracy. (Delawar 2006)

Reliability coefficients were used to test the reliability or relevance of the questions asked in the questionnaire with respect to the variables. Cronbach's Alpha for all cases, including independent and dependent variables, exceeds was the test criterion of 0.70, which is the minimum required for verifiable validity (Nunnally, 1978). This result shows that the measurements used in this statistical study are reliable. The validity and reliability of the questionnaire are discussed below.

Validity

Validity is the difference between the observations and the actual characteristics of the phenomena that are subject to measurement. Validity means that the measuring instrument is appropriately selected (Mehdzadeh Arrafi and Khodadadpour, 2009).

In order to ensure the validity of the tool, a questionnaire has been arranged that their points are obtained through the study of books, theses and the use of the articles and their related backgrounds, as well as using expert opinions. Content analysis method and by referring to the views of 5 professors and experts were used. The questionnaires were submitted to 5 people and 5 experts from the field of education. After repeated reviews and reviews of the professors and experts, recommendations were made to correct, delete and add a number of questions. Finally, a questionnaire with three component and 80 questions were prepared with a 5-degree scale.

Reliability

The purpose of stability is the stability of the measuring device. If we repeat the test and in all cases the results are the same, then the tool is stable. Therefore, reliability means achieving similar results in the repetition of previous actions (Mehdzadeh Arshtrati and Hosseini, 2009).

In this research, the Cronbach's alpha (α) test was used to determine the reliability of the questionnaire. The formula (1-3) is used to calculate it. The Cronbach's alpha method, used to measure the degree of internal consistency of an indicator, is mainly used for questionnaires whose terms or questions are usually designed as a Likert (and also a distant or relative) spectrum, and their answers are multiple choices. The Cronbach Alpha coefficient fluctuates between (0) and (1), according to which, the closer the value of this coefficient to (1), indicates more harmonization of the units of a scale (the same source). As a general rule, the quotient and, in other words, the necessary amount of alpha for an index is 0.70, and if the alpha coefficient is greater than or

equal to 0.70, then the measuring instrument has a high reliability and in this case The results can be trusted better (Habibpour and Safari, 2009).

For this purpose, a pre-test of 30 questionnaires was distributed among the subjects and first, in general, and then for each factor, the Cronbach's alpha was calculated. The results are presented in Table (3-1) and Table (3-2).

$$\alpha = \frac{K}{K - 1} \left(1 - \frac{\sum_{i=1}^K S^2_i}{S^2_t} \right)$$

K: number of items or questions of an index;

S^2_i : Variance of grades for jumber;

S^2_t : The variance of the sum of each responsive scores (the variance of the total index) (the same source).

The Cronbach's alpha for the questionnaire is shown in general terms in Table (3-1).

Table 3-1: Total Cronbach Alpha

Cronbach's Alpha	N of Items
.842	20

Table 3-2: Cronbach's alpha for each single item

Cronbach's alpha	Questioners
0.812	Q 1
0.758	Q 2
0.765	Q 3
0.789	Q 4
0.821	Q5
0.813	Q6
0.786	Q7
0.745	Q8
0.782	Q9
0.795	Q10
0.793	Q11
0.812	Q12
0.845	Q13
0.786	Q14
0.81	Q15
0.842	Q16
0.834	Q17
0.807	Q18
0.766	Q19

0.803	Q20
0.816	Q21
0.814	Q22
0.833	Q23
0.866	Q24
0.806	Q25
0.83	Q26
0.862	Q27
0.854	Q28
0.827	Q29
0.786	Q30
0.823	Q31
0.836	Q32
0.834	Q33
0.853	Q34
0.886	Q35
0.827	Q36
0.851	Q37
0.883	Q38
0.875	Q39
0.848	Q40
0.807	Q41
0.844	Q42
0.857	Q43
0.855	Q44
0.874	Q45
0.907	Q46
0.776	Q47
0.8	Q48
0.832	Q49
0.824	Q50
0.797	Q51
0.756	Q52
0.793	Q53

0.806	Q54
0.804	Q55
0.823	Q56
0.856	Q57
0.797	Q58
0.821	Q59
0.853	Q60
0.845	Q61
0.818	Q62
0.777	Q63
0.814	Q64
0.827	Q65
0.825	Q66
0.844	Q67
0.877	Q68
0.817	Q69
0.841	Q70
0.873	Q71
0.865	Q72
0.838	Q73
0.797	Q74
0.834	Q75
0.847	Q76
0.845	Q77
0.864	Q78
0.897	Q79
0.838	Q80
0.862	Q81
0.894	Q82
0.886	Q83
0.859	Q84
0.818	Q85
0.855	Q86
0.868	Q87

0.866	Q88
0.885	Q89
0.918	Q90

Data analysis method

Different statistical methods were used to analyze the data. For this purpose and in accordance with the needs of analytical statistics, statistical software of social sciences, software PLS and SPSS in descriptive statistics and inferential statistics have been used.

In the descriptive statistics section, statistical indices such as frequency distribution table and bar chart, mean, poster, mean, standard deviation and variance were used.

In the test section, inferential statistics, Kendal consensus coefficient and model fit of the model were used for confirmatory factor analysis and structural equation modeling using PLS software. In the Delphi analysis, Kendall's consensus coefficient was used to calculate the degree of coordination of the views of the experts. The Kendall consensus coefficient, represented by the w symbol, is a nonparametric test and is used to determine the degree of coordination between the comments. The test results are presented below.

RESULTS

Inferential analysis

1-4-4. The validation of professional competency components and the fitting of the professional qualification model of teachers

The results of the normal test of the distribution of data showed that the distribution of the scores of the variables studied does not have a normal distribution. Because of this, in the model, the hidden second variable (professional qualifications of teachers) with constructive components Professional knowledge, professional practice, and professional commitment), partial least squares method was used because the assumption of the normalization of data is not considered and the measurement of hidden variables of the constructor type is possible in this method. Goodness of the fitting of the model was evaluated on three levels based on the relevant criteria as described below. The criteria for assessing the fitness of the model are:

1. Measurement criteria for the fitting of measurement models

1-1. Index reliability: Cronbach's Alpha, composite reliability (CR),

1-2. Convergent validity using the average variance extracted (AVE); the value of more than 0.5 represents the convergent validity of the model (Fornell & Larcker, 1981; quoted from Davari and Rezazadeh, 2009).

1-3. Convergent validity; the existence of a relationship ($AVE < CR$), denotes divergent validity (the same source).

1-4. The significance coefficients of factor loads are significant using t meaningful values; values greater than 1.96 are significant.

2. Evaluation criteria for fitting the structural part of the model

2-1. Significant values of t ; values greater than 1/96 are significant.

2-2. R^2 criterion; this criterion shows the effect of exogenous variables on the endogenous variable. The values of 0.19, 0.33 and 0.67 are considered as weak, moderate, and strong, respectively (China, 1998).

2-3. Q^2 benchmark; this criterion was introduced by Stone and Gates (1975). Hensler et al. (2009), the value of 0.35 and higher, is considered a suitable measure of the predictive power of the model. In the following, the results of fitting the model on the basis of these criteria are presented in the form of tables 4-6 to 4-10 and Figures 4-1 and 4-2.

It should be noted that due to the high indexes of components (23 indicators for professional knowledge component, 32 indicators for professional action component and 25 indicators for professional commitment component), the model diagram The measurements are not plotted, but the tables are related to factor loads and meaningful values (tables 4-6 to 4-8).

Hypothesis 1:

Professional knowledge is one of the components of professional competences of teachers in Isfahan province.

To examine the above hypothesis, factor loadings of professional knowledge indicators with professional knowledge and professional competence component were tested, the results of which are shown in the form of table (4-6).

Table 4-6: Factor loads and t meaningful values for measuring models (professional knowledge indicators)

Professional competence		Professional knowledge		Indicator	Row
t Statistic	Factor load	t Statistic	Factor load		
1/73	0/19	2/31*	0/27	Content knowledge	1
1/28	0/14	1/86	0/21	Student Recognition	2
4/80**	0/44	6/71**	0/57	Knowledge of teaching and learning	3
1/54	0/19	2/19*	0/27	Specialized knowledge	4
3/86**	0/41	3/90**	0/44	Understanding the Principles of Education	5
2/90**	0/31	2/96**	0/34	Information about students' abilities, values and interests	6
6/56**	0/45	6/99**	0/50	Information about how students grow	7
4/28**	0/41	5/46**	0/49	Information about taught subjects taught	8
13/23**	0/68	14/66**	0/69	Awareness of how to produce and organize thematic knowledge	9
4/50**	0/44	5/47**	0/52	Having general skills such as the ability to lead group discussions	10
11/74**	0/66	14/89**	0/73	Knowledge and skills of research and knowledge of recent research on teaching	11
2/81**	0/33	4/75**	0/50	Knowledge and skills of using technology in your learning process	12
11/53**	0/65	13/63**	0/71	Knowledge of students' curriculum	13
4/64**	0/48	8/40**	0/67	Teachers' awareness of educational technology	14
7/43**	0/59	12/82**	0/72	Teachers' awareness of new teaching methods	15
7/85**	0/57	13/90**	0/73	Teachers' awareness of professional skills	16
6/31**	0/52	10/78**	0/68	Teachers' Awareness Level in Educational Exercise	17
4/53**	0/43	6/60**	0/55	Teachers' awareness of the evaluation process	18
11/95**	0/66	15/73**	0/75	Having the knowledge and skills	19
10/49**	0/69	15/40**	0/76	Developing professional teaching	20
9/55**	0/64	13/03**	0/74	Having knowledge of the media and technology	21
11/61**	0/68	13/13**	0/70	To have knowledge and techniques of teaching and learning process	22
6/55**	0/51	6/93**	0/52	Have the power to transfer information to learners	23
11/21**	0/32	-	-	Professional knowledge component	

0/05 *P<0/01**P<

According to the data of Table 4-6, based on t meaningful values, the only indicator of "knowledge of the student" is not significant among the indicators of the component of professional knowledge, (0.21) (t<1.96). Factor loads (path coefficients) are related to other professional knowledge indicators (t>1.96). Significance values at the error level of 0.05 were marked with * and significant values were set at the error level of 0.01 with the ** sign. Therefore, it is concluded that the professional knowledge component of the professional competencies model of teachers is very high ($\lambda = 0.32$, $t=11.21$)

Hypothesis 2:

Professional practice is considered as one of the components of professional competences of teachers in Isfahan province.

To examine the above hypothesis, factor loadings of professional action indicators with professional and professional competence component were tested, the results of which are shown in the form of table (4-7).

Table 4-7: Factor loads and significant t values for measurement models (professional practice indicators)

Professional competence		Professional practice		Indicator	Row
t Statistic	Factor load	t Statistic	Factor load		
9/54**	0/65	11/39**	0/70	Learning design	24
7/31**	0/54	6/43**	0/54	Create a learning environment	25
5/60**	0/48	5/18**	0/48	Learning Evaluation	26
5/45**	0/52	5/10**	0/52	Skills in using knowledge, abilities and interests of	27
6/34**	0/54	6/34**	0/54	Skills in using appropriate teaching methods with	28
10/77**	0/67	12/82**	0/72	Ability to analyze the content and skills of developing	29
6/26**	0/56	6/20**	0/57	Mastering the knowledge and skills of multiple	30
9/52**	0/62	9/90**	0/66	Skill for creativity and student problem solving	31
4/00**	0/42	4/58**	0/49	Skills in updating their knowledge and their ability to	32
10/02**	0/66	11/51**	0/70	Use of teaching methods in the field of environmental	33
6/39**	0/52	6/78**	0/55	Having the ability to think rationally and the power of	34
7/94**	0/54	7/38**	0/54	Ability to plan and organize lessons	35
5/27**	0/50	5/01**	0/49	Ability to manage classroom	36
8/33**	0/59	8/90**	0/62	Ability to motivate students	37
7/03**	0/56	8/18**	0/60	Ability to use optimal time	38
5/86**	0/50	6/50**	0/53	Ability to engage students to help them learn and	39
7/41**	0/54	8/94**	0/62	Ability to communicate with colleagues and collaborate	40
6/41**	0/57	6/61**	0/57	Ability to create, select, evaluate and use school and	41
5/00**	0/47	4/74**	0/47	The ability to analyze, evaluate and reflect their	42
8/58**	0/61	10/41**	0/66	Ability to create new methods and innovations in	43
8/34**	0/58	9/20**	0/60	Skills in delivering (speaking power), listening to	44
10/70**	0/56	10/76**	0/61	Ability to foster, prosperity, efficiency and organization	45
4/99**	0/48	5/22**	0/46	Provide regular feedback to students and parents and	46
2/55*	0/29	2/54*	0/31	Having a lesson plan	47
6/83**	0/56	6/14**	0/52	Effective management of groups	48
6/25**	0/50	6/84**	0/56	Use of new technology	49
3/71**	0/41	4/97**	0/51	Mastering multiple teaching patterns - learning	50
7/40**	0/56	7/74**	0/58	Adapt and innovate in practical exercises	51
4/54**	0/47	5/51**	0/55	Ability to understand, analyze and evaluate a large	52
7/40**	0/61	8/63**	0/64	Ability to communicate verbally and in writing with	53
12/35**	0/70	13/29**	0/72	The ability to reflect information and experiences	54
7/01**	0/58	6/34**	0/55	Exchange of views and opinions with colleagues	55
21/31**	0/46	-	-	Professional practice component	

0/05 *P<0/01**P<

According to Table 4-7, based on t meaningful values, factor load (path coefficients) is related to professional activity indices. Significance values at the error level of 0.05 were marked with * and significant values were set

at the error level of 0.01 with the ** sign. Therefore, it is concluded that the professional component of the model of professional competencies of teachers is very high ($\lambda = 0.46$, $t = 21.31$).

Hypothesis 3:

Professional commitment as one of the components of professional competences of teachers in Isfahan province is highly valued.

To examine the hypothesis, factor loadings of professional commitment indicators with professional commitment component and professional competence were tested, the results of which are shown in Table (4-8).

Table 4-8: Factor loads and significant t values for measurement models (professional commitment indicators)

Professional competence		Professional commitment		Indicator	Row
t Statistic	Factor load	t Statistic	Factor load		
11/00**	0/68	12/17**	0/68	Professional learning	56
8/42**	0/68	11/52**	0/63	Participation	57
7/78**	0/68	12/26**	0/55	Leadership	58
7/60**	0/70	12/62**	0/55	Values	59
9/53**	0/73	15/36**	0/65	connections	60
6/28**	0/74	11/08**	0/55	Morality	61
7/33**	0/72	11/97**	0/57	Behavioral competence	62
5/34**	0/62	7/89**	0/46	Student Commitment	63
4/52**	0/62	8/32**	0/44	Respect for the individual equality of students	64
3/53**	0/49	5/06**	0/42	Commitment to the values and laws of society	65
3/32**	0/54	6/12**	0/35	Love and interest to students and teaching	66
4/69**	0/53	6/36**	0/42	Understand the individual differences of students in teaching with justice and equality	67
6/14**	0/55	6/83**	0/51	Strengthening the sense of curiosity, tolerance, honesty and goodness for students	68
5/89**	0/52	6/22**	0/46	Enjoying the spirits of humor, vitality and flexibility	69
2/71**	0/33	3/45**	0/25	Creativity in teaching	70
4/10**	0/47	5/17**	0/41	Criticism of	71
2/79**	0/49	5/48**	0/30	Responsibility	72
2/78**	0/47	5/03**	0/30	Having a set of traits and ethical behaviors and being examples	73
6/64**	0/64	10/03**	0/56	Understanding the student's individual needs	74
5/65**	0/63	8/43**	0/49	Confidence in their ability to perform tasks	75
7/05**	0/49	6/49**	0/53	Awareness of how political, historical, and political forces influence popular life	76
5/55**	0/56	7/06**	0/45	Effective company in retraining courses	77
3/90**	0/55	6/36**	0/38	Promote your knowledge and skills in a variety of ways such as self-education	78
5/69**	0/53	7/32**	0/45	Documenting and distributing your knowledge and practicing with others	79
8/13**	0/63	9/00**	0/56	Adherence to the system of shared values and beliefs in order to positively influence the learning and moral development of learners	80

9/80**	0/33	-	-	Professional commitment component
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According to Table 8-4, based on t meaningful values, factor load (path coefficients) is related to professional commitment indicators. Significance values at the error level of 0.01 are marked with a ** sign. Therefore, it is concluded that the professional commitment component of the professional competency model of teachers is highly valued ($t = 9.80, \lambda = 0.33$).

Hypothesis 4:

The model of professional competences of teachers in Isfahan province has a favorable fit.

To fit the model of professional competencies of teachers, partial least squares method is used, the results of which are presented in the form of diagrams (4-1) and (4-2) and tables (4-9) and (4-10).

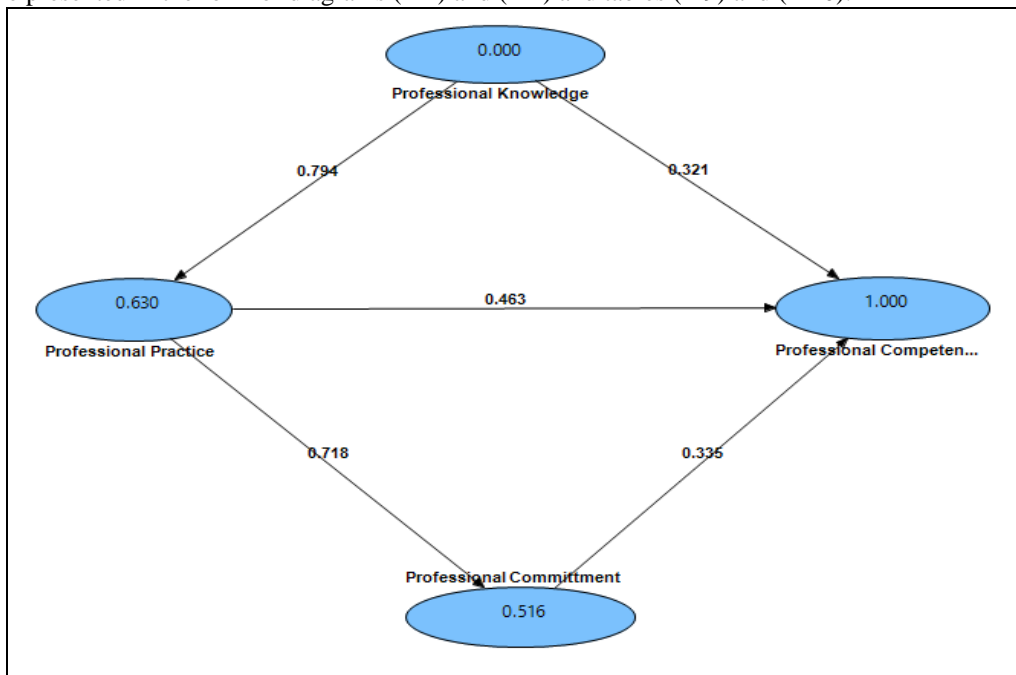


Figure 4.1: Factor loads between hidden variables of the structural model

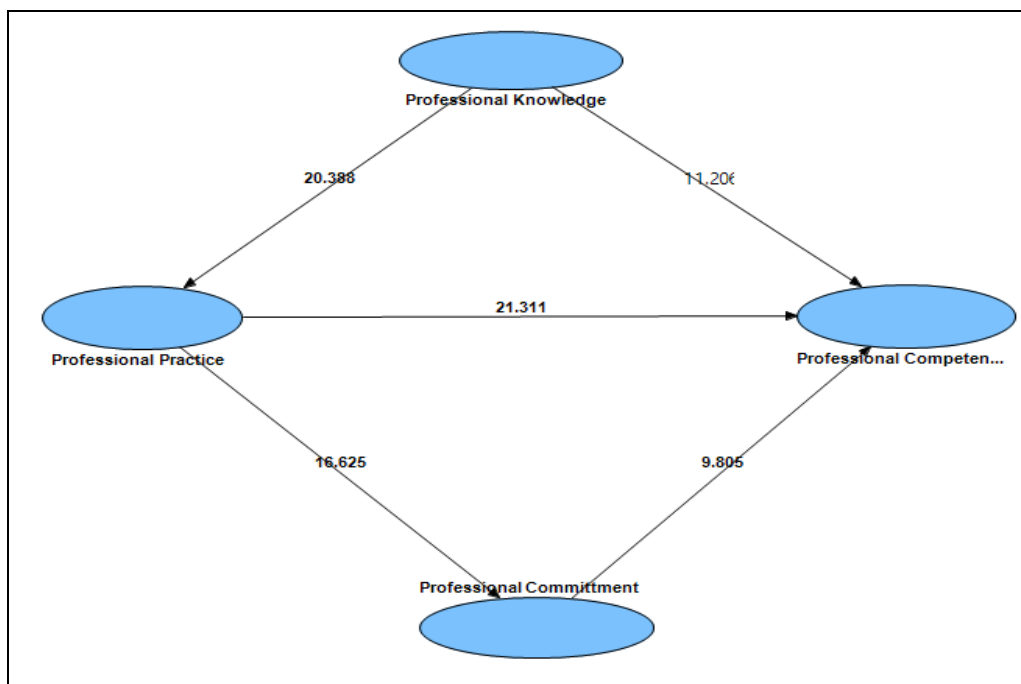


Figure 4.2: Value t meaningful for structural model

Table 4-9: Factor loads and t meaningful values for the structural model

t Statistic	Factor load (path coefficient)	Professional competency components	Row
11/21**	0/321	Professional Knowledge	1
21/31**	0/463	Professional Practice	2
9/80**	0/335	Professional Commitment	3

0/01**P<

According to table (4-9), in the structural model, the factor loads (path coefficients) are related to factors with factor loadings with values above 2.57 at the error level of $\alpha = 0.01$, which are shown in the table above. Marked with **. Factor loads and meaningful t values show that professional practice with a 0.463 load has the most role in the professional competence of teachers. Professional commitment with a factor of 0.335 is in the second place and professional knowledge with a factor of 0.321 is in the third place.

Table 4-10: Model fit assessment indices

GOF	R ²	Cronbachs Alpha	Communality	CR	Q ²	AVE	Components
0/48	-	0/909	0/350	0/919	0/350	0/350	Professional knowledge
	0/630	0/932	0/330	0/939	0/330	0/330	Professional practice
	0/516	0/921	0/351	0/929	0/351	0/351	Professional commitment
	1/00	0/963	0/269	0/965	0/267	0/269	Professional competences
	0/715	0/931	0/325	0/938	0/325	0/325	Medium Criterion

According to the data of tables (4-6) to (4-10) and diagrams (4-1) and (4-2), the fitting of the model was evaluated at three levels: 1. Evaluation of the fitting of the measurement models section, based on the mean reliability index Combined (CR = 0.94) and mean Cronbach's alpha coefficients (0.93) which are more than 0.70, the model has convergent reliability and, given that (AVE < CR), convergent validity also exists. Accordingly, and given the meaningful values of t in Table (4-8), all of which were significant at the level of $\alpha = 0.01$, it can be concluded that the measurement models have suitable fitness. 2. Assessing the fitting of the structural part of the model; based on the significant values of t in Table 4-6, all of which were significant at the level of $\alpha = 0.01$, and considering that the mean of the coefficient of determination ($R^2 = 0.71$) is more than 0.67, it is concluded that the structural model has suitable fit but based on the Q² index, whose average value (0.32) is less than 0.35, the predictive power of the model is not optimal and 3. Evaluation The general fitness of the model; based on the Good Fitness Criterion (GOF), the calculated value for this index was equal to 0.48, which is greater than 0.35, so it is inferred that the general model has a suitable fit. In the following, the relationship between the indicators and the competency of the teachers' professional qualities is discussed.

Table 4-11: Factor loads and t meaningful values related to the relationships between professional knowledge indicators with professional competence

t Statistic	Factor load	Indicator	Row
10/49**	0/69	Professional development	1
13/23**	0/68	Awareness of how to produce and organize thematic knowledge	2
11/61**	0/68	To have knowledge and techniques of teaching and learning process	3
11/74**	0/66	Knowledge and skills of research and knowledge of recent research on teaching	4
11/95**	0/66	Having the knowledge and skills	5
11/53**	0/65	Knowledge of students' curriculum	6

9/55**	0/64	Having knowledge of the media and technology	7
7/43**	0/59	Teachers' awareness of new teaching methods	8
7/85**	0/57	Teachers' awareness of professional skills	9
6/31**	0/52	Teachers' Awareness Level in Educational Exercise	10
6/55**	0/51	Have the power to transfer information to learners	11
4/64**	0/48	Teachers' awareness of educational technology	12
6/56**	0/45	Information about how students grow	13
4/80**	0/44	Knowledge of teaching and learning	14
4/50**	0/44	Having general skills such as the ability to lead group discussions	15
4/53**	0/43	Teachers' awareness of the evaluation process	16
3/86**	0/41	Understanding the Principles of Education	17
4/28**	0/41	Information about taught subjects taught	18
2/81**	0/33	Knowledge and skills of using technology in your learning process	19
2/90**	0/31	Information about students' abilities, values and interests	20
1/73	0/19	Content knowledge	21
1/54	0/19	Specialized knowledge	22
1/28	0/14	Student Recognition	23

Table (4-11) shows the factor loadings associated with the relationship between professional knowledge and professional qualifications of teachers in descending order (more or less). Accordingly, the index "professional development" with a factor of 0.69 was the first priority and indicators of "knowledge of how the production and organization of the knowledge of the subject" and "knowledge and teaching methods of teaching and learning" with factor load 0.68 are in the next steps. The "content knowledge" and "specialized knowledge" indicators with factor load 0.19 and "student recognition" with factor load of 0.14 are in the last positions.

Table 4-12: Factor loads and t meaningful values related to the relationship between professional practice indicators with professional competence

t Statistic	Factor load	Indicators	Row
12/35**	0/70	The ability to reflect information and experiences	1
10/77**	0/67	Ability to analyze the content and skills of developing this ability in	2
10/02**	0/66	Use of teaching methods in the field of environmental variables	3
9/54**	0/65	Learning design	4
9/52**	0/62	Skill for creativity and student problem solving	5
8/58**	0/61	Ability to create new methods and innovations in educational methods	6
7/40**	0/61	Ability to communicate verbally and in writing with people	7
8/33**	0/59	Ability to motivate students	8
8/34**	0/58	Skills in delivering, listening to student comments, communicating with students	9
7/01**	0/58	Exchange of views and opinions with colleagues	10
6/41**	0/57	Ability to create, select, evaluate and use school and community resources	11
6/26**	0/56	Mastering the knowledge and skills of multiple evaluation	12
7/03**	0/56	Ability to use optimal time	13

10/70**	0/56	Ability to foster, prosperity, efficiency and organization of personality and	14
6/83**	0/56	Effective management of groups	15
7/40**	0/56	Adapt and innovate in practical exercises	16
7/31**	0/54	Create a learning environment	17
6/34**	0/54	Skills in using appropriate teaching methods with lesson subjects	18
7/94**	0/54	Ability to plan and organize lessons	19
7/41**	0/54	Ability to communicate with colleagues and collaborate with them and engage in lifelong learning	20
5/45**	0/52	Skills in using knowledge, abilities and interests of students in class	21
6/39**	0/52	Having the ability to think rationally and the power of reasoning	22
5/27**	0/5	Ability to manage classroom	23
5/86**	0/5	The ability to engage students to help teach and learn lifelong	24
6/25**	0/5	Use of new technology	25
5/60**	0/48	Learning Evaluation	26
4/99**	0/48	Provide regular feedback to students and parents and guide students' academic achievement	27
5/00**	0/47	The ability to analyze, evaluate and reflect their activities and enhance their effectiveness	28
4/54**	0/47	Ability to understand, analyze and evaluate a large number of scientific resources	29
4/00**	0/42	Knowledge and ability to update knowledge and adaptive ability, judge their knowledge with new findings, beliefs and theories	30
3/71**	0/41	Mastering multiple teaching patterns - learning	31
2/55*	0/29	Having a lesson plan	32

Table 4-12 shows the factor loadings related to the relationship between professional activity indicators and professional qualifications of teachers in descending order (more or less). Accordingly, the index of "ability to reflect information and experiences" with a factor of 0.70 in the first place is important and indicators of "ability to analyze the content and skill of developing this ability in students" with a factor load of 0.67 and "using the method teaching in the field of environmental variable "with a factor of 0.70 in the next. Indicators of "mastering multiple learning patterns-learning" patterns with factor loadings of 0.41 and "having a lesson plan" with a factor of 0.29 in the last positions.

Table 4-13: Factor loads and t meaningful values related to the relationship between professional commitment and professional competence indicators

t Statistic	Factor load	Indicators	Row
6/28**	0/74	Morality	1
9/53**	0/73	connections	2
7/33**	0/72	Behavioral competence	3
7/60**	0/70	Values	4
11/00**	0/68	Professional learning	5
8/42**	0/68	Participation	6
7/78**	0/68	Leadership	7
6/64**	0/64	Understanding the student's individual needs	8
5/65**	0/63	Confidence in their ability to perform tasks	9
8/13**	0/63	Adherence to the system of shared values in order to positively	10
5/34**	0/62	Student Commitment Commitment	11
4/52**	0/62	Respect for the individual equality of students	12
5/55**	0/56	Effective company in retraining courses	13

6/14**	0/55	Strengthening the sense of curiosity, tolerance, honesty and goodness	14
3/90**	0/55	Promote your knowledge and skills in a variety of ways, such as self-education	15
3/32**	0/54	Love and interest to students and teaching	16
4/69**	0/53	Understand the individual differences of students in teaching with justice and equality	17
5/69**	0/53	Documenting and distributing your knowledge and practicing with	18
5/89**	0/52	Enjoying the spirits of humor, vitality and flexibility	19
3/53**	0/49	Commitment to the values and laws of society	20
2/79**	0/49	responsibility	21
7/05**	0/49	Awareness of how political, historical, and political forces influence popular life	22
4/10**	0/47	Criticism of	23
2/78**	0/47	Having a set of traits and ethical behaviors and being examples	24
2/71**	0/33	Creativity in teaching	25

Table (4-13) shows the factor loadings related to the relationship between professional commitment indicators and professional qualifications of teachers in descending order (more or less). Accordingly, the index of "ethics" with the factor load of 0.74 is in the first place and the indicators of "communication" with factor load of 0.73 and "behavioral competence" with factor load of 0.72 are in the next. Indicators of "criticality" and "having a set of traits and ethical behaviors and samples" with a factor of 0.47 and the indicator of "creativity in teaching" with factor load of 0.33 in the last positions.

CONCLUSION

Given that the research model is based on the Huntley model (2008), it is not possible to accurately compare the overall model with other tested models in other studies. But in general, it can be said that the proposed model of research in the main component part is in perfect agreement with the Huntley model (2008). However, in the following section, the components of the main components are somewhat different from Huntley (2008), which is why the purpose of the present research was to develop the Huntley model and its localization based on the demographic and cultural features of Isfahan province. Therefore, it can be said that the present research model is consistent with the Huntley model (2008).

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