

Evaluation the Acceptability of Secondary Teacher's 10 Professional Standards (Accrediting Study)

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Abstract

This study aimed to investigating in accrediting of secondary teacher's ten professional standards among public high school teachers as field study. The research method was quantitative survey study. The validation instrument was five-item LIKERT scale questionnaire contained indices and components of teacher's professional standards model that the calculated reliability with Cronbach's Alpha in pilot study was 0/96. Data analysis with using descriptive and inferential statistics showed that teachers have confirmed and ranked the standards and their indices in different levels so that the std.7 (knowledge and skills for technology use in classroom) had top rank and the std.10 (teacher's pedagogic approaches) had the lowest rating from secondary teachers viewpoints.

Keywords: professional standards, public high school teachers, validation.

1. Introduction

"International commission on education for the 21st century" stipulates that no reform can be successful without the active and effective teachers and their participation and cooperation (Haney, 2005: p.9). Nowadays, it is believed that in order to maximize learning opportunities for all learners in the process of education, policymakers and educational leaders must ensure that teachers implement standards-based education (Castillo et al, 2002) Therefore one of the major steps in improving the quality and performance of teachers is the design and development of related professional standards in the areas of knowledge, skills, and practices and so efforts to institutionalizing them in the educational systems (Izadi and Shafe, 2009). For this reason in the developed countries the agenda of developing professional standards and conducts the criteria for teacher effectiveness in teaching - learning environments in educational institutions and accrediting agencies. Because this professional standards leads to clarifying of educational goals and expectations, developing more strong and attractive teaching - learning opportunities (Kluth and Straut, 2001; Cimer, 2007) and Improving the quality of teaching in the classroom and thus improve the quality and efficiency of the schools and the education system and ensuring the quality of educational services (Martens and Prosser, 1998) and also the professional standards guide teachers to identify professional development needs and managing their continuous learning, facilitating pre-service training program and results to the enthusiasm and motivation of the teaching profession (Professional Standards for Queensland Teachers, 2005).

The "European committee for standardization" was defined the standardization as "agreement about the precise criteria that continually needs to applied in form of laws, guidelines or rules to adaption of processes, products or services in the best possible with the objectives" (Biczynski, 2001). Therefore the standardization is the adapting of tasks and behaviors with special patterns that is defined through set of rules and norms for a particular situation (Jones, 1998).

Generally Standardization is not a single paradigm perspective so couldn't have a definitively viewpoint on the issue. Especially in the field of education that deals with the human subject, standardizing becomes more complicated. Therefore in the area of education, particularly in school area don't have any global same standards as the same universal standards for goods and industry products. Thus any countries should make and developed education standards such as teacher's professional standards in order to their all aspect coordinate such culture, politic, ideology, education philosophy and other local and indigenous factors (khanifar, 2004). Therefore previously researchers in a qualitative study with using Delphi technique have designed a set of professional standards for secondary teachers that including:

- Std1. Classroom management
- Std2. Classroom learning environment and climate
- Std3. Classroom leadership
- Std4. Knowledge and skills of instructional development and teaching design

- Std5. Knowledge and skills of teaching and organizing of learning opportunities
- Std6. Supervision, evaluation and feedback in classroom
- Std7. Knowledge and skills of technology use in classroom
- Std8. Professional, legal and ethical responsibility
- Std9. Teacher's career progress and professional development
- Std10. Teacher's pedagogic viewpoints and approaches

Thus the main purpose in this study is that validation of the ten standards above with aim determining of the acceptability and general admission of the designed ten professional standards among secondary teachers community.

2. Review of related researches

Danielson (1996) has noted 22 components of effective teacher professional standards in the field of teaching, and subdivided them in 4 major standard components including: design and preparation, classroom climate and environment, teaching and instruction, professional duties and responsibilities.

Huntly (2008) categorized the teachers professional competencies in 3 main areas such: professional knowledge, professional practice and professional engagement in which is the categories of professional knowledge includes the content knowledge, knowledge about teaching and learning and student recognition; professional practice includes the design of learning, making of learning environment, assessment and evaluation of learning; and professional commitment includes the professional learning, collaboration, leadership, values, communication and ethics.

Keith (1986) has introduced a model of professional standards approved and adopted by the Regional agency that the criteria for optimal performance and teachers effective teaching that the qualified teacher must do before, during and after teaching practice As a source of important activities such as : developing objectives, preparation of job descriptions, clinical supervision on classroom work and constantly improve the performance and evaluation criteria for job promotion or dismissal of and etc.

One of the comprehensive, current and universal models of designing and promoting teacher's professional standards is the professional standards for teachers as a manual model for professional activities on "Queensland State of America" that developed by ministry of education in that state. This model show all aspects of teacher professional practice in teaching performance related to each other. One of The strengths of the below model is that largely it is emphasized on the teacher's professional activities and students practices in the professional classroom environment also focused on teachers and students classroom abilities.

Williams et al (2004) have reported the "New Jersey state of U.S." new professional standards for teachers and educational leaders that developed as a part of qualified teacher certification rules, thus Standard topics include:

- Std1: The curriculum knowledge
- Std2: Human growth and development
- Std3: Diversity of learners
- Std4: Strategies and educational planning
- Std5: Measurement and evaluation
- Std6: Learning environment
- Std7: Special needs
- Std8: Community
- Std9: Cooperation and partnership
- Std10: Professional development

Previously as mentioned, many developed countries have given the great importance to standardization in the field of education and always have emphasized to development and updating the teachers professional standards.

3. Research method

The methodology of the present study for the accrediting of a professional standards model (that formerly designed and validating by group of experts in the Delphi process) certainly is referring to the objective comments of group of teachers that was involved at teaching – learning environments, until to be measured their viewpoints and judging to the standard's indices through questionnaire. Thus the methodological approach of the study is a quantitative - descriptive approach that was conducted with survey method. The validation instrument was five-item "LIKERT" scale questionnaire contained indices and components of teacher's professional standards model that was made by researchers and to ensure its validity and reliability, the calculated reliability with Cronbach's Alpha in pilot study through SPSS was 0/965. Of course the reliability of the questionnaire was calculated uniformly for the whole standards and separately for each of sub-indices after data collecting so that the obtained Cronbach's Alpha was 0/762. The participants in this study 715 secondary high school teachers

from 5 education regions in “Tabriz” city that 154 of them was sampled through multistage cluster sampling method. From 154 questionnaires were distributed among selected teachers, 143 were returned and were based for statistical analyzes. Finally the data were analyzed by descriptive statistics such as frequency and distribution histograms of responses and were used the inferential statistics such as “confirmatory factor analysis” (CFA) and especially the F test of Friedman In order to identifying the rating standards by teachers.

4. Results and discussion

First the descriptive presentation of demographic findings includes: 39 teachers are from education region1. Consist of 23 have bachelor and 16 have master degree and with average of 22/72 teaching experience years 41 from education region3. Consist of 27 have bachelor and 14 have master degree with average of 21/46 teaching experience years and 63 teachers from education region4. Consist of 40 have bachelor and 23 have master degree with average of 21/02 teaching experience years.

For inferential statistics, in the first step after the data collection and entry into SPSS software, for determine the validity of constructs and final approval of the ten standards, Factor analysis. But before the factor analysis, observance of a test defaults such as “KMO” for the adequacy of 143 the sample size and the “Bartlett” symmetry measurement for the observance of the linear multiplicity of correlation matrix was necessary.

Table1: KMO and Bartlett's test for determining the adequacy of sampling and taking items

KMO measurement for adequacy of sample size	0/880
Bartlett's test of sphericity (approximation Chi-square)	3910/026
Degree of freedom (df)	946
Significance (sig)	0/000

Since the above results showed fitting of factor analysis to identifying the structure model and has been observed the assumption of the linear multiplicity of correlation matrix. Hence the maximum likelihood confirmatory factor analysis with VARIMAX rotation and stabilizing 10 assumed factors (standards) was used in the software as following. The result of confirmatory factor analysis in the table (2) showed that the 10 assumed standards (factors) were capable to explaining of 57/111 percent of variances. So this result due to factor scattering and having 44 multiple sub-components had a good result for organizing the indicators around 10 domains.

Table2: Confirmatory factor analysis with the 10 factors and the whole explained variance.

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	15.834	35.987	35.987	15.426	35.059	35.059	4.734	10.760	10.760
2	2.371	5.388	41.375	2.009	4.565	39.624	4.704	10.690	21.450
3	1.881	4.275	45.649	1.309	2.974	42.598	3.065	6.967	28.417
4	1.740	3.954	49.604	1.454	3.305	45.903	2.802	6.369	34.786
5	1.575	3.579	53.182	1.186	2.696	48.598	2.799	6.362	41.148
6	1.311	2.981	56.163	.881	2.002	50.601	2.532	5.754	46.902
7	1.242	2.823	58.985	.875	1.988	52.589	1.286	2.924	49.826
8	1.162	2.642	61.627	.839	1.908	54.496	1.205	2.738	52.565
9	1.100	2.501	64.127	.612	1.392	55.888	1.133	2.575	55.140
10	1.080	2.456	66.583	.538	1.223	57.111	.867	1.972	57.111

The data analyzing showed that the distribution of 143 responses hadn't normal distribution. It means that the rate and extent of participants' responses to each of the ten standards were different. In order to the normality of the distribution of factor scores (standard) Kolmogorov - Smirnov test are used.

Table3: Kolmogorov – Smirnov test for distribution of factors normality

	Std.1	Std.2	Std.3	Std.4	Std.5	Std.6	Std.7	Std.8	Std.9	Std.10
Frequency	143	143	143	143	143	143	143	143	143	143
Normal parameters										
Mean	4.2923	4.4021	4.5497	4.330	4.4811	4.3613	4.3357	4.4598	4.2692	4.5195
Standard deviation	0.5904	0.5791	0.5718	0.577	0.5920	0.7299	0.7736	0.6993	0.5655	0.5655
Very infinite different										
certainty	146	153	215	130	190	194	197	220	188	198
Positive	115	151	215	123	190	191	195	220	188	198
Negative	146	153	206	130	181	194	197	206	170	179
Z (Kolmogorov – Smirnov)	1.751	1.824	2.577	1.554	2.277	2.315	2.357	2.630	2.246	2.365
Significance level (sig)	0.004	0.003	0.000	0.016	0.000	0.000	0.000	0.000	0.000	0.000

According to the test results in the table above, significance of all factors (key areas of standards) less than 0.05, so that the null hypothesis based on normality of factors scores was rejected so accordingly none of the ten factors distribution is not normal.

It can be concluded that the lack of normal distribution of factor scores, suggesting the existence of different weights for each of the 10 standards. Therefore, in order to group compare the 10 differences standards to understand the existing of difference in the teacher's responses mean for each of them, and so to estimation of the ten standards ranking that was rated by teachers the next step was compared difference of standard's mean through "one sample T test by using field data in secondary teachers community as table below.

Table4: One – sample t test results to comparing of mean's difference.

Standards	t	df	Sig	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Std1	10.509	413	.000	1.51208	1.2293	1.7949
Std2	-7.880	413	.000	-1.94928	-2.4356	-1.4630
Std3	12.349	413	.000	3.64010	3.0607	4.2195
Std4	-23.416	413	.000	-2.61594	-2.8355	-2.3963
Std5	16.263	413	.000	2.41304	2.1214	2.7047
Std6	-23.483	413	.000	-6.41063	-6.9473	-5.8740
Std7	-27.170	413	.000	-6.66425	-7.1464	-6.1821
Std8	-6.899	413	.000	-1.78502	-2.2936	-1.2764
Std9	-17.836	413	.000	-2.91304	-3.2341	-2.5920
Std10	53.949	413	.000	11.92995	11.4953	12.3646

Value of 20 for the test above is determined in order to response's means of items from high to too much. Results showing that the standards of 1, 3, 5 and 10 with positive value of t have high mean's difference and it means that variance of responses for them is too much. For analysis of this results Friedman test is required.

Table5: Friedman test for rating of standards

Standards	Mean	Rating Mean	Chi – Square	df	sig	Proposed Rating
Std1.	21.5121	7.38	3227.992	9	0.000	7
Std2.	18.0507	4.63				5
Std3.	23.6401	8.23				9
Std4.	17.3841	4.42				4
Std5.	22.4130	7.97				8
Std6.	13.5894	1.77				2
Std7.	13.3357	1.66				1
Std8.	18.2150	4.77				6
Std9.	17.0870	4.23				3
Std10.	31.9300	9.94				10

In order to given the significant difference between the mean and the mean values the standards have been ranked 1 to 10, which approximately this ranking was proposed from the results of one-sample t-test and Friedman's test.

5. Conclusion

As a result in the present study we were able to accreditation a model of ten professional standards for secondary teachers that previously was designed in qualitative method, based on data from a group of secondary school teachers. Data analysis showed that:

1. Participant teachers confirmed ten principal factors that called ten professional standards because of the ten factors were able to explain more than half of the variance in confirmatory factor analysis (CFA) model.
2. Also secondary teachers have an optimal evaluation toward designed indicators and standards for use in teaching - learning environments.
3. Some standards such as 6 and 7 from teacher's viewpoints as high priority standards in their professional performance and others such as 3 and 10 were lower priority for them.

These standards that are designed, accredited and validated in a field scientific and research process, so is suggesting as a model for the professional practice, behavior and performance of secondary teachers in the classrooms and other teaching - learning environments, and as well as a set of indicators for performance evaluation by managers and supervisors to use in the real education environments.

References

- Biczynski, L. (2001). Standardization; Challenge of Today, Necessity for Future, Available from: www.Itas.fzk.de/e-society/preprints.
- Cimer, A. (2007). Effective teaching in science: A review of literature. *Journal of Turkish Science Education*, Vol.4, N.1, pp. 20-44.
- Castillo, D., Magdalono. (2002). Standardization of Standard-Based Instruction. Available from: www.airs.brown.eduzooz
- Danielson, C. (1996). Enhancing professional practice; The framework for teaching. Alexandria, VA. Association for Supervision and Curriculum Development.
- Haney, JE. (2005). The Influence of Professionalization on the Recruitment of Prospective Teachers as Perceived by Texas Teachers of the Year. PHD Dissertation, TEXAS university.
- Huntly, H. (2008). Teacher's Work: Beginning Teacher's Conceptions Of Competence, *The Australian Educational Researcher*, Vol. 35, No.1: 235-252.
- Izadi, YA., Shafe, H.M. 2009. Designing and developing of teacher's performance standards in teaching – learning process. *Journal of human science*, EMAM HOSSEIN university 9(17):131-154.
- Keith, AA. (1986). Teacher evaluation policies and practice in four western provinces and four North West State. Report of a study supported by the Canadian Embassy.
- Khanifar, H. (2004). Introduction to Human Resource standards in education, *Journal of Psychology and Educational science*, Vol 34, Issue. 2, pp. 153-174.
- Kluth, P., Straut, D. (2001). Standards for Diverse Learners, Available from: <http://www.ascd.org>.
- Martens, E., Prosser, M. (1998). What constitutes high quality teaching and learning and how to assure it, *Journal of quality assurance in education*, Vol. 6, pp. 170.

- OECD. (2004). Organization for Economic Co-operation and Development, Final Report 14, pp. 95-109.
- Professional Standards for Teachers. (2005). Guidelines for Professional Practice, Queensland education, city east, Brisbane 4002.
- William, L., Eyck, RT., Doolan, J., Brady, J., Aviss, E. (2004). New Jersey Professional Standards for Teachers and School Leaders. New Jersey Department of Education, Trenton New Jersey. Available from: <http://www.state.nj.us/education>

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