

Investigating The Familiarity Of High School Teachers in Iran With Educational Viewpoints Of Nassir Al-Din Tusi For Knowledge Improvement

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Abstract

The aim of the present study was to investigate the high school teachers' familiarity with educational perspectives of Nassir Al-Din Tusi -a Persian philosopher- as an appropriate model for improving their knowledge of educational perspectives. This was a descriptive study which was conducted using survey method. The population included all high school teachers in Qom, Iran in the school year 2011-2012. Of this, a sample of 264 teachers was selected by applying multistage stratified and simple random sampling methods. In this study, a researcher-made questionnaire was used as data collection tool. Findings of the current study showed that the familiarity of high school teachers with Tusi's educational perspectives was not satisfied. Moreover, there was a significant difference in terms of gender between teachers and their familiarity. Finally we provided a model for improvement of teachers' knowledge.

Key words: Educational assessment, High School education, Knowledge improvement, Nassir Al-Din Tusi, Survey

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Introduction

Nassir Al-Din Tusi is one of the rare characters of Iran's history in various aspects (intrinsic comprehensiveness, depth and breadth of thought, seizing the opportunity, mindedness and tolerance, practical morality) who was the hero of turning threats into opportunities (making Mongols familiar with the culture and civilization of Islam, preventing the invasion of Mongols in other Muslim countries, preventing the burning of the large library of Hassan Sabbah, founding Maragha observatory, and saving scientists and scholars). He was renowned for patience (long residence at the court of the Ismailis, having professors and students who were not intellectually coordinated) and the extent of his viewpoints in the field of education was inspiring for every perfectionist teacher (attention to individual differences, attention to the stages of development, attention to the interest and willingness of the child). The great, comprehensive and profound character of Nassir, on the one hand, was a manifestation of his impenetrable determination, and on the other hand, reflected great events of his life (Mongols' invasion, living in the Ismailis' castles, surrendering to Ismailis against Holaku Khan's invasion, moving with them to Baghdad, and the fall of Kharazmshahian as well as Abbasid); Therefore, familiarity of teachers and educators with big scientists, philosophers and educators' viewpoints, such as Nassir Al-Din Tusi, many of whom, in the history of education have influenced global education by providing their valuable comments and insights, and have originated major changes is an inescapable necessity. For success in teaching, teachers need to be well familiar with modern educational and psychological theories (Piaget,1995). According to Eisner, due to the nature of the work of teachers they work with theory and consciously or unconsciously use them. The implicit set of viewpoints about various issues such as human nature, factors that motivate students, factors affecting learning conditions and etc. can affect the performance of the teacher in the classroom (Seif, 2001). Theory can even determine what teacher should pay attention to in the classroom. Prominent concepts of theories drive the human perception; therefore, theory inevitably leads teaching (Eisner et al., 1979). Thus, during teaching, theory can be used to aid the efficiency of functionality (Shabani, 2006). Teaching methods are closely related to the viewpoints and principles of learning. Theories and principles derived from the study of learning are ultimately used in the classroom and learning environment and also change the type of curricula and education. Educational theories determine, to a certain extent, the type of character, personality and traits that students should have, and also to a certain extent the type of knowledge and insight that is worth learning. The education directly or indirectly will be affected by one or more theories of learning. Teacher training in Iran has fundamental defects in some areas (Mo'ayyeri,2008). One of the major defects is the little importance given to the theoretical basis for action to practical instances which has caused teachers' pragmatic view that hinders them from thinking about the pedagogy and consequently teaching methods. Teachers must be prepared not merely to act but to think and contemplate and teacher training should not only be limited to practical aspects. In other words, teachers should be trained to think, so that he/she be able to move from "view" to "action". Otherwise teachers act instinctively or just duplicate, and make effort to merely transfer their own knowledge (specific knowledge) to students in one way or another - as in an inherited tradition, is already transferred to them- regardless of the fact that whether or not the transfer of knowledge leads to better education -effective learning. Given these needs, teacher training programs should seek ways to establish the "science of education" as "the rationale for proper educational practice" rather than imposing it on the "educational practice". Given the importance of the theoretical foundations of the educational practice for the teacher to follow thinking about education and pedagogy-and consequently- teaching methods, teacher training programs must rely on two concepts of "educational view" and "educational practice" and prepare teachers not merely for practice but for thinking. This means that teacher training should not only suffice to explaining practical aspects but also teachers should be trained for thinking about education, so that they can move

from “view” to “practice” and look for ways to establish the “science of education” as the “rationale for proper educational practice” to be able to drag the effectiveness of the link between theory and practice in the field of education and reality of the classroom. Similar research studies show that the majority of teachers are not on a satisfactory level in terms of the knowledge of the basics and fundamentals of the education, and they required knowledge and professional skills. Of these research studies, the following can be mentioned: Kiamanesh (2002) investigated the evaluation of the third phase of a comprehensive and cooperative plan of education (junior high schools, 2nd grade), achievements and prospects and found that in many activities in the field of education connected with the comprehensive education, such as the link between tasks and subject matter and background knowledge and experience of students, the link between tasks and global issues, creativity in implementing tasks, discussing questions posed in the classroom and making a connection with the past, present and future, lack of flexibility in unforeseen situations, creating challenges and accompanying students, and the link between tasks and everyday problems and experiences of students, teachers’ performance is not satisfactory. In this context, improving the content of educational tasks (curriculum) and paying attention to the above should be regarded in teachers training programs. Sobhaninejad (2003), in a study designed to investigate the knowledge level of faculty members in humanities department of the university of Tehran about learning theories and their application in teaching, reminded that the knowledge level of faculty members in learning theories was higher than the average, and faculty members of related fields (psychology and educational sciences) who were participated in knowledge and learning theories workshops, were more successful than those of other majors. Therefore, familiarity of teachers and educators with viewpoints of great scientists, philosophers and educators, many of whom, in the history of education have influenced global education by providing their valuable comments and insights, and have originated major changes is an inescapable necessity. In short, teachers’ act needs a theory, because theory is the content of practice which bases teachers’ decisions, planning as well as classroom practice. However, the two are interdependent. Therefore, it is important for teachers to be familiar with theories, but, alongside that, teachers should be familiar with the importance of educational macro-theories. They should also understand and recognize the situation where a theory should be used. Given the above, this study seeks to answer the question that to what extent high school teachers in Qom, Iran are familiar to Nassir Al-Din Tusi’s educational perspectives and what they think about the extent of his comments applicability in today’s educational system in Iran.

Research Method

Regarding the method, this study is a descriptive survey; in terms of objectives, it is practical and in terms of data collection, it uses a non-experimental approach on a cross-sectional plan. Since its findings could be used by teachers, it was an applied research. The population of the study consisted of all high school teachers in Qom, Iran during 2011-2012 school year ,(N=3103, male=1388 and female=1715). Among this population, a sample of 264 teachers was selected by applying multistage stratified and simple random sampling methods. In this study, a researcher-made questionnaire with 7 items was used as data collection tool. The items were shown in table 1.

Table 1. Items of research questionnaire

No.	Questions
1	Familiarity with educational ideas of Tusi
2	Familiarity with moral perspectives of Tusi
3	Familiarity with cultural heritage and practical guidances of Tusi
4	Driving situations to take advantage of educational theories of Tusi in educating students
5	How to foster the students’ desires in accordance with moral education of Tusi
6	The suitability of the educational ideas of Tusi in educating students
7	School lessons suitable for understanding lifestyle of Tusi

The validity of questionnaire was assessed by opinions of educational experts and The reliability of the instrument was confirmed by chronbach’s alpha which was 0.82. Analysis of data was conducted through descriptive and inferential statistics in SPSS software. We used independent two-sample t-test to examine our questions.

Results and Discussion

Descriptive statistics

In this section we provide demographic characteristics of participants in table 2. In tables 3 we present descriptive data related to research questionnaire’s items.

Table 2. Demographic characteristics of research participants

Measure	N	%
Sex group		
Male	122	46.2
Female	142	53.8
Total	264	100.0
Age group (year)		
25-35	76	28.8
36-45	142	53.8
46-55	41	15.5

56-65	5	1.9
Total	264	100.0
Educational degree		
Bachelor	173	65.5
Master	80	30.3
PhD	11	4.2
Total	264	100.0
Educational field		
Basic Sciences	54	20.5
Social Sciences	74	28.0
Educational Sciences	51	19.3
Not specified	85	32.2
Total	264	100.0

Table 3. Descriptive statistics of research questions

Question	Participants	Frequency	Minimum	Maximum	Mean	SD
1	Male teachers	122	26.00	94.00	69.09	18.46
	Female teachers	142	20.00	84.00	58.18	18.29
	All	264	20.00	94.00	63.22	19.13
2	Male teachers	122	20.00	92.00	57.1	17.19
	Female teachers	142	40.00	100.00	68.91	14.94
	All	264	20.00	100.00	62.51	17.22
3	Male teachers	122	40.00	92.00	73.77	13.60
	Female teachers	142	20.00	92.00	63.23	18.21
	All	264	20.00	92.00	68.10	17.05
4	Male teachers	122	28.00	100.00	70.16	17.13
	Female teachers	142	20.00	88.00	67.46	12.14
	Total	264	20.00	100.00	68.71	14.69
5	Male teachers	122	20.00	100.0	74.65	18.84
	Female teachers	142	20.00	100.0	62.02	21.89
	Total	264	20.000	100.0	21.89	21.45
6	Male teachers	122	20.00	96.00	73.74	17.95
	Female teachers	142	56.00	98.00	81.37	13.43
	Total	264	20.00	98.00	77.27	16.44
7	Male teachers	122	60.00	92.00	74.95	9.78
	Female teachers	142	20.00	96.00	68.02	16.43
	Total	264	20.00	96.00	71.22	14.17

Inferential statistics: testing research questions

To examine questions, we used independent two-sample t-test.

Q1. Is there any difference between gender of teachers and their familiarity with educational ideas of Tusi?

The results of t-test are shown in table 4.

Table 4. T-test results for question 1

Sex group	Frequency	Mean	SD	t	df	Sig.
Male	122	69.09	18.46	4.813	262	0.001
Female	142	58.18	21.29			

According to table 4, we can say that there is a significant difference between familiarity of male (Mean=69.09) and female teachers (mean=58.18) with educational ideas of Tusi (Sig. <0.05), where male teachers were more familiar compared to female teachers. Q2. Is there any difference between gender of teachers and their familiarity with moral perspectives of Tusi?

Table 5 presents the results of t-test for this question.

Table 5. T-test results for in question 2

Sex group	Frequency	Mean	SD	t	df	Sig.
Male	122	57.01	17.19	-5.955	262	0.001
Female	142	68.91	14.94			

According to table 5, there is a significant difference between familiarity of male (Mean=57.01) and female teachers (mean=68.91) with moral perspectives of Nassir Al-Din Tusi (Sig. <0.05), where female teachers were more familiar compared to male teachers. Q3. Is there any difference between gender of teachers and their familiarity with cultural heritage and practical guidances of Tusi?

Table 6 shows the answers to the question 3: "which practical guidances of Tusi you are using to educate students?"

Table 6. Answers given to question 3

Question No.	Items	No. of answers	Mean
3	Having respect to scholars and scientists	264	4.01
	Tolerance and openness	264	3.22
	Deep thinking, and knowledge acquisition	264	2.73
	Taking advantage of opportunities	264	2.64
	Integrity and ingenuity	264	2.40

T-test results are shown in table 7.

Table 7. T-test results for question 3

Sex group	Frequency	Mean	SD	t	df	Sig.
Male	122	73.77	13.60	5.250	262	0.001
Female	142	63.23	18.21			

Based on table 7, there is a significant difference between familiarity of male (Mean=73.77) and female teachers (mean=63.23) with cultural heritage and practical guidances of Tusi, where male teachers were more familiar compared to female teachers. Q4. Is there any difference between male and female teachers in terms of paying attention driving situations to take advantage of educational theories of Tusi in educating students?

Table 8 shows the answers to the question 4: "What are driving situations to take advantage of educational theories of Tusi in educating student?"

Table 8. Answers given to question 4

Question No.	Items	No. of answers	Mean
4	When communicating	264	3.22
	During teaching	264	3.20
	When faced with problems	264	3.20
	In case of indirect impact on others	264	2.73
	In case of indirect impact on others	264	2.64

In table 9 we present t-test results for question 4.

Table 9. T-test results for question 4

Sex group	Frequency	Mean	SD	t	df	Sig.
Male	122	70.16	17.13	1.491	262	0.137
Female	142	67.46	12.14			

Based on table 9, there is NO significant difference between male (Mean=70.16) and female teachers (mean=67.46) in terms of attention to driving situations for taking advantage of educational theories of Tusi in educating students (Sig.>0.05). Accordingly, male teachers had more attention compared to female teachers.

Q5. Is there any difference between male and female teachers in terms of acting to foster the students' desires according to moral education of Tusi? Table 10 shows the answers to the question 5: "How to foster the students' desires in accordance with moral education of Tusi?"

Table 10. Answers given to question 5

Question No.	Items	No. of answers	Mean
5	With educational programs consistent with the growth of any power of natural forces	264	3.24
	With realistic educational planning given the talent and interest of the individual	264	3.13
	With proper moral programs consistent with the growth of any power of natural forces	264	3.08
	By considering the principle of gradual progress from easy to difficult	264	3.05
	With discipline on educational planning based on knowledge, wisdom and expediency	264	2.50

Table 11 presents t-test results for question 5.

Table 11. T-test results for question 5

Sex group	Frequency	Mean	SD	t	df	Sig.
Male	122	74.65	18.84	4.979	262	0.001
Female	142	62.02	21.89			

Based on table 11, there is a significant difference between male (Mean=74.65) and female teachers (mean=62.02) in terms of reconciling the students' desires to moral education of Tusi (Sig.<0.05). Accordingly, male teachers had more matching power compared to female teachers.

Q6. Is there any difference between male and female teachers in terms of the suitability of the educational ideas of Tusi in educating students?

Table 12 presents t-test results for question 6.

Table 12. T-test results for question 5

Sex group	Frequency	Mean	SD	t	df	Sig.
Male	122	73.74	17.95	-3.858	262	0.001
Female	142	81.37	13.43			

Based on table 12, there is a significant difference between male (Mean=73.74) and female teachers (mean=81.37) in terms of the suitability of the educational ideas of Tusi in educating students (Sig.<0.05). Accordingly, female teachers were considered more suitability compared to male teachers. Q7. Is there any difference between male and female teachers in terms of using school lessons for understanding lifestyle of Tusi?

Table 13 shows the answers to the question 7: "Which school lessons are suitable for understanding lifestyle of Tusi?"

Table 13. Answers given to question 7

Question No.	Items	No. of answers	Mean
7	Literature (tale and story)	264	3.68
	Literature (poetry)	264	3.02
	Religious and moral education	264	3.01
	History	264	2.98
	Theoretical Sciences	264	2.30

Table 14 presents t-test results for question 7.

Table 14. T-test results for question 7

Sex group	Frequency	Mean	SD	t	df	Sig.
Male	122	74.95	9.78	4.073	262	0.001
Female	142	68.02	16.43			

Based on table 14, there is a significant difference between male (Mean=74.95) and female teachers (mean=68.02) in terms of in terms of using school lessons for understanding lifestyle of Tusi (Sig.<0.05). Accordingly, male teachers had more emphasis on using school lessons compared to female teachers.

Providing a model to improve teachers' knowledge

The model consists of 8 phases that should be implemented step by step. In the first phase, teachers' knowledge is investigated to specify their level of familiarity with Tusi's educational perspectives. If the result was good, their weaknesses and strengths are identified, because only recognition of the educational needs could provide the basic axes for in-service programs (Sharma, 2001). Identification of teachers' familiarity as well as their personal characteristics such as educational degree, educational filed can better help to determine the needs and goals.

In the second phase, the purpose is specified. In this phase "improving teachers' familiarity with Nassir Al-Din Tusi's educational perspectives" is the goal. Determination of the goal is generally implemented based on the first phase. In the third phase, based on the goal, the best and most appropriate method of teachers' knowledge improvement is selected. In this regard, several methods can be used including providing appropriate conditions for teachers to continue their education, creating motivation for specialized education, regular workshops and creating motivation to participate in the workshops.

In the phase 4, all equipments, facilities, and human expertise factors are provided for improving teachers' knowledge. Among these facilities, cooperation with professors specialized in the education, and preparing books, papers, and journals are mentioned. In the fifth phase, the plan is conducted on a small sample of teachers; in other words, the plan is piloted.

The phase 5 primarily evaluates the plan. In the phase 6, weaknesses and strengths of the plan are investigated. In this phase, the following questions are proposed:

- Have teachers knowledge been investigated properly?
- Have the goals been determined logically?
- Is the method selected appropriately?
- Have the results of the pilot study been generalized to the whole population of teachers? If the answer was yes, the plan continues, otherwise, it should be modified.

In the phase 7, the plan is completely conducted on the main population, and in final stage the results is obtained. Figure 1 shows the structure of our model

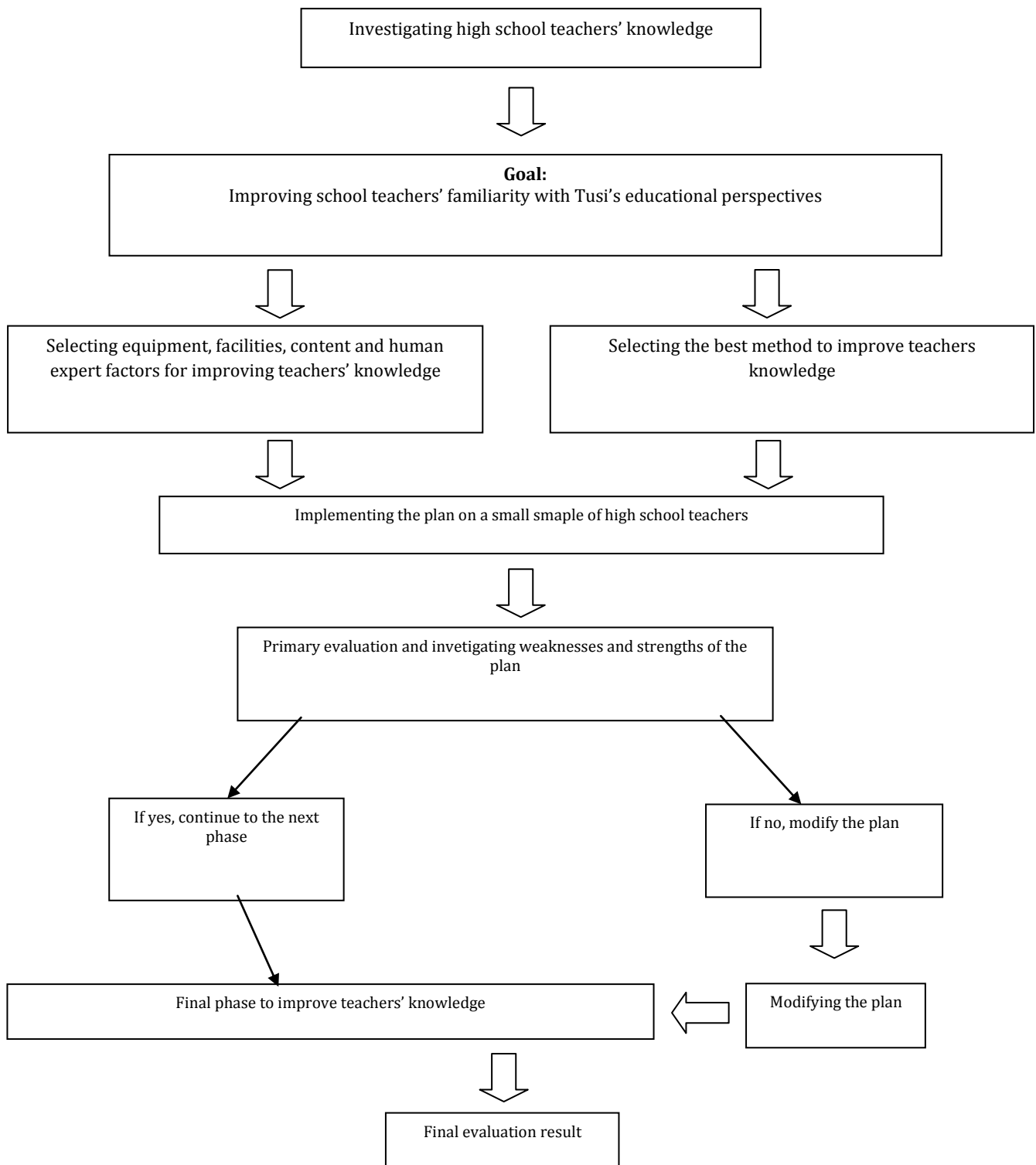


Figure 1. the proposed model for evaluating the knowledge of high school teachers

Conclusion

In this study we attempted to investigate the familiarity of high school teachers in Iran with educational perspectives of Nassir Al-Din Tusi in order to provide a model for improving their knowledge. The participants were 264 high school teachers in Qom city. We used survey method to collect data. After conducting data by using a questionnaire, we examined our questions. According to the results we concluded that the familiarity of teachers with ideas of Tusi was not satisfied. According to research questions, we found out that there is difference between gender of teachers and their familiarity level: in terms of "familiarity with moral perspectives of Tusi", and "the suitability of the educational ideas of him in educating students" female teachers were in better level compared to male teachers, while in terms of "familiarity with educational ideas of Tusi, "familiarity with cultural heritage and practical guidances of him", "attention to driving situations to take advantage of educational theories of Tusi in educating students", "reconciling the students' desires to moral education of Tusi" and "using school lessons for understanding lifestyle of Tusi" male teachers acted better than female teachers. Finally we presented a model to help in improving knowledge of high school teachers based on attention to educational perspectives of Nassir Al-Din Tusi.

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