Iranian Journal of Management Studies (IJMS)
Vol 1. No.1. winter 2007 pp: 57 - 71

A Prelude to Standard and Standardization in Educational Systems

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Abstract

This article is an attempt to review the standardization of human resources in education. Today, a qualitative movement toward efficient trainings in educational systems is necessary, since one of the important factors in the development and progress of any society is necessarily resources, manpower and their education.

Considering education as a basic system in growing human resources, the present article tries to address this matter, due to the fact that we are in a situation in which policy-makers and training leaders are worried about standard trainings. They will be assured when the teachers and human resources are standard. Therefore, endeavors have been made in this article to discuss the concept of standard and its historical background in the world and Iran by using the most valid resources and sites.

Training standards and the seven-principles of standard are studied as well. The discussion will continue by clarifying training standards movement and geographical conditions. Afterwards, the cultural roots will be mentioned. Meanwhile, five issues regarding the necessity of standard-based training will be discussed. Furthermore, the professional competencies as well as four major inputs in standardization will be studied.

Finally, as a base for future discussions, eight conceptual models will be indicated.

Key words:

standards, human resources, education, competency holding conditions.

1. Introduction

Essentially, one of the important factors in the development and progress of any society is human resources. Its effective utilization plays a double role in social system development. Meanwhile, having a growing system and qualitative promotion for human resources is one of the important indicators in society's development. By increasing the productivity and standardizing it, its productive resources will be multiplied in various aspects.

Since, as a system, education plays a radical role in growing human resources for other social organizations, it redoubles the necessity of addressing the human resource standardization discussion. Today, the possession of qualitative human resources with high productivity, equipped with new and up-to-date information/ methods, human-technical skills, professional competencies and more importantly standard indicators all determine the nations' positions in global standing hierarchy.

Nowadays, it is believed that to maximize training and learning opportunities in education process, policy-makers and training leaders should be assured that the teachers execute standard-based trainings (Castillo, 2002, p. 1). This will be possible if the teachers and human resources are standardized.

Now, through a broad training framework, German government tries to compel the states to accept an overall standard for education (in Germany, there is no single training system and educational system is implemented federally in 16 states).

In his recent report, German Education Minister, Ulgar Boolman, has supported that education policy should be integrated throughout the country. By executing this plan entitled, "Future of Education", he tries to promote the Germany's education system ranking as the first five countries in the world by next ten years.

By allocating four billion Euros, the Federal government is going to construct 1800-2000 standard-based schools during 2003 to 2007 and standardize the existing schools. Interestingly, major part of such schools is allocated to the teaching of the fifth-tenth grade students. However, the plan is executable if educational system is integrated throughout the country. So far, the states have not reacted, but it is obvious the every one agrees that it is necessary to find a solution to overcome this educational crisis.

Previous Studies on Standard concept

Standardization is not a new phenomenon and has a long history in human life. Like many natural phenomena, standard is the recognition of environment by man. Initially, it is achieved unconsciously. For example, the history of metric machine which is highly used dates back to the far past. In fact, it is a model of fingers. Standardizing the calendar, the days and months in Byzantine year by Julius Czar in 46 B.C has the same root (Yeganeh, 2000).

Standard is the result of a special effort to determine the rules of a job, an activity or merchandise which is approved by authorities. Standard is to facilitate the activities, arranging the works and performing in the best conditions.

Standardization means the arrangement and application some rules to make a discipline by considering scientific conditions and safety requirements in line with an interested group's benefits and cooperating with them in order to promote social, economical and service aiming at a better and more comprehensive manner.

This procedure is based on the decisive results of sciences, techniques and experiences. It determines not only present improvement ground but also future transformation base and should be in the line with time progress (Ronagh, 2001, p. 63).

1-1. Historical background of standard

Standard is rooted in English language. In the Middle English (1100-1500), standard was a flag around which the soldiers of an army used to gather. If the flag was raised and hoisted, it showed the success of the army and if inverted, it was a sign indicating the army's failure. Standard in Middle English is rooted in ancient French (6-13 centuries) and means "stand". In ancient French, Standard meant flag and was a combination of Latin root with stand.

Originally, this suffix was entered into the ancient French and Middle English from ancient German (800-1100) to make nouns. Today, standard is used in French language with the meaning of flag. However, its meaning transformation in English has not occurred in French. In today's French language, "norm" is used to define standard and the same word has entered German (Ronagh, 2001).

1-2. The transformation itinerary of "Standard" word

Standard has different meanings in English. Its main and ancient meaning is flag and has other meanings which have not entered into Persian language. The major meanings of this word include:

- A scale for measuring a working unit in doing administrative services and testing weights, amounts and measures in industry.
- A scale for showing good/ ideal qualities or the amount of necessary scales. In fact, when it is said the standard for students' admission is at least 12 mean, it means that admission or rejection of students is at least 12 mean. Or when it is said that the Standard for the tallness of Police University students is at least 170 cm, it means that the necessary scale for the Police University volunteers is determined in this way. This scale is imitable such as a standard city, a standard short story, a standard movie or a standard play. It means that city, short story, movie or play have all certain and accepted competencies. (Ronagh, 2001, p. 64-65).

1-3. History of standard in Iran

The first remains of standard in Iran returns to Darius Achaemenides kingdom which made weights with fixed weight and their weight was written on them in three languages. The weights were distributed throughout the Achaemenides dynasty to enable officers to control commercial weights carefully and prevent shortchanging. During Islam, controlling the weights and scales was the responsibility of municipals, sometimes the judges and the Judiciary and sometimes that of the sheriff.

The emergence of metric machine in France and its widespread in other countries was mentioned in mathematical, geographical and scientific books such as *Geography Science Principles* by Abdolghafar Monnajem in 1849 in which scales like kilometer, kilogram, meter and millimeter are continuously mentioned. Also, in *Mathematics Science Principles* published by Alikhan in 1896 in Bombay (India), a Chapter is allocated to metric scales.

Standardization was introduced in manufacturing industries before human resources. Manufacturing standards were resulting from the West in 19th century and started from exportation, macro management and global trading.

1-4. Training standards

As mentioned, standard has various meanings. Oxford dictionary (1997. p. 125) reads: " standard is something to measure the weight, length, quality, etc; the admitted level of something regarding its quality, certain legal indications, legal fineness, etc." Standard is also considered as a rule for controlling and the preliminary need to control.

In recent years, some researchers who have been studying human resource standards believe that standardization is making a rational coordination in teaching-learning process appropriate with time and changes by teachers in order to establish a competent society for learners. In this line, standard starts from human resources (teachers and administrators) and ends with the learners.

Training standards are rules that are defined clearly for various aspects of educational system. However one can consider training standards in different aspects and dimensions, but in this report, standards are evaluated in financial, textual, human resources, equipment and training facilities in elementary, secondary and high schools.

Nowadays, the necessity of continuous attendance of standard in different arenas of human life generally and in education field particularly is felt. Meanwhile, the world today is facing a culture in which the parents are highly worried about the "Education Quality" in their children's schools. Sometimes, financial issues are overshadowed by this matter. In other words, students' parents are worried about education quality, quality of teachers and qualitative training standards rather than tuition and financial affairs. Moreover, this is one of the most challenging issues in education field, since there is a consensus about its necessity, elements, dimensions, quality and quantity.

2. Standard principles

Standard is a concept that can show the integration and discipline of mental, practical and technical activities as a cultural process of the society. Therefore, standardization is based on the following principles:

Principle 1: standardization is a simplified act which is the result of collective and informed efforts of society's members and requiring the reduction of many problems. This process not only removes present complexities but also prevents future complexities. It is noteworthy that simplification leads to success only through the cooperation of all involved

and beneficent individuals. So, developing the standards should be based on consensus and all people obliged to execute it.

Principle 2: standardization is a social and an economic activity which should be done through the consensus of all involved and beneficent individuals (even though it becomes more complicated in training field and different aspects of human resources which connects to behavior-performance-knowledge).

Principle 3: standard dissemination is not valuable itself unless it is executed. It needs suitable planning and some individuals' devotion to achieve public interests.

Principle 4: although standardization is done through preparing a selection and then stabilizing that selection, it is flexible, namely, it will be revised and reformed in line with needs and changes.

Principle 5: standards should be reviewed and revised (if necessary) in certain periods. The distance between revisions could be various in special cases but it should not be too short because the standard could not be seen stable and reliable. Usually, most countries consider a five-year period for such revisions.

Principle 6: when performance or behavior or performance characteristics of an activity are described in a standard, the measuring methods appropriate for that characteristics should be also explained or referred to other standards already exist for such methods. In other words, appropriate tools to measure the standard should be developed.

Principle 7: the necessity of executing national standards should be considered carefully. Of course, its necessity depends on standard nature, credit, rules and social/ cultural conditions of the society (Yeganeh, 2000).

2-1. Training standards movement

Regarding the existing works and researches, about one decade has passed since the beginning of training standards movement and a question has always been mentioned: "is there a group of standards which result in remarkable improvement in teachers' performance and promote their innovation and creativity?"

Although education is one of the most challenging issues in human life and there has always been a consensus about its necessity and significance, but different methods have been pursued due to the lack of consensus about

its elements, aspects, quality and quantity in recent decade. There are different cultural, economic, social and political aspects in various countries and each society has its own context as well as social, political, cultural and economical grounds. Hence, attitudes about educational ideals, namely what they should be really, are different and, sometime, conflicting. Regarding such conflicts, is it possible to talk about ideal standards or criteria? (Fathi Vajargah, 2000)

There are many other questions regarding "four-explosions age" namely knowledge explosion, population explosion, information explosion and expectancy explosion (Postman, 1997) and five-issue world (speed, power, wealth, opportunity and information).

So, it is difficult to find an answer to this question because talking about merchandise standard is easier than a human standard. Today, standard is measurable but it is complex for manufacturers, traders, craftsmen and technology experts. However, in education field which addresses human, this is a more complicated issue. For the same reason, there is no accepted general global standard for education and particularly for schools. Moreover, no one has yet claimed to achieve such a standard. More importantly, any country with regard to its geographical, cultural, political and social conditions as well as its position on the earth has defined and followed a certain standard. For the same reason, special national committees are established which define and clarify the standards for the same country.

2-2. Geographical conditions in standardization

Standards are not abstract and unchangeable concepts. That means one can not have a paradigmatic look at them. They could be extracted, mitigated, localized or defined. Sometimes, they should be reformed on the basis of each country's conditions. Therefore, it is believed that relatively accepted- scales should be considered and the best standards should be used by considering the special conditions and characteristics of each country and even each region.

It means that sometimes it is not possible to have a national looking at standards. For the same reason, some researchers believe that a regional looking is necessary.

We can observe such a movement in Germany that involves smaller units of educational system and defines the best standards based on the special conditions of each school. Therefore, it was clarified in the Conference of State Cultural Ministries of United Germany that plans to

execute educational reforms should be pursued regularly. Despite their dependencies and competitions, Education Ministries have voiced their readiness to implement a set of reforming plans.

According to these plans, the knowledge gavels in the schools will be tested regularly and the schools in different states will be compared. Meanwhile, a "single standard" for different systems (five/six-year periods for elementary and nine-year periods for high schools) will be established. It was hoped in the conference that a single training method would be designed for different courses especially mathematics, English language and German language.

2-3. the necessity of standard-based training

The necessity of standard-based training originated from the fact that in standardization process, clear aims for learning are established and students' qualitative training is ensured. Both students and teachers can not achieve necessary efficiency without a clear attitude and vision. Moreover, they should be able to turn their attitudes and vision towards practice in defined frameworks in order to achieve a qualitative work. (Castillo et al, 2002).

By reviewing Internet resource, one can understand that standardization movement has started its motion. As mentioned, it has been highly welcome by evaluating the characteristics, specifications, skills and standards of all teachers throughout the world. Various organizations and bodies, public or private are involving in designing standard tests and executing them in the framework of teachers, performance assessment system.

First problem

In scientific texts, there are no important and referable materials regarding standards generally and training standards and teachers' standards particularly to be applied by training management authorities.

Second problem

In most countries, applicants for teaching job should possess teaching merits based on defined standards (Apple, 1999) to perform their task namely training the students efficiently.

Third problem

One of the aims of teachers' standardization is to provide a feedback to

design effective training programs for teachers.

Fourth problem

One of the aims of measuring teachers' competencies is to find the merits level and to train them in the grounds in which some deficiencies are felt (Saeed and Mahmood, 2002).

Fifth problem

In many countries, there is a re-granting certification to teachers (named Professional Competency Certification). Therefore, the teachers who hold certifications should extend and complete their certifications by executing different tests in a few years.

4. Teachers' professional and scientific competencies

Teachers are one of the important foundations of all educational systems. In many countries, extensive programs to attract, maintain and grow teachers have turned into a fundamental strategy. In fact, teachers' roles and functions are relatively similar in most countries. Usually, teachers are expected to possess all defined scientific and technical merits, dominate course contents, apply appropriate methods and techniques for training and in addition to training, to be an appropriate model to educate the youngsters (Fathi Vajargah, 2000).

Despite a relative consensus on teachers' roles and functions in different countries, the standards applied in such countries are also different because they are varied in national income level, economical progress level and annual per capita income. One can achieve relative standards for teachers through reviewing and comparing the conditions of different training systems. A review of implemented studies and researches shows that there are three fundamental elements with regard to the teachers' defined standards:

1. Enough salary which should be paid to teachers in elementary, secondary and high schools.
2. The educational level of teachers in elementary, secondary and high schools.
3. The time of teachers' attendance in elementary, secondary and high schools.

Moreover, based on scientific findings and social-value criteria, each country has defined certain merits for its teachers that are considered as

standard.

The various merits of teachers form their professional competency which consists of three important and fundamental areas namely: performance, knowledge and behavior (Fathi Vajargah, 2000).

Standards as educational system tools

To answer this question that "why standards are important as effective and efficient educational system", it should be emphasized that an effective and efficient educational system expresses clear expectations and helps meet the needs and understand the necessities which finally improve the educational system performance.

Meanwhile, the efficiency of educational system is a volatile subject which is considered in concealed or revealed performance of educational system.

Some researchers believe that students' success is one of the major fundamentals of educational system (and teachers). Some emphasize on high performance of administrators and principals and some other focus on the statements made by students, administrators and beneficiaries (Strong, 2002, p. 1).

There are various concepts and terms in training management text to measure teachers' efficiency, such as:

1. Teachers standardization:

Desart (2002) & Magdaleno (2002) & Harris (1996) & Carr Castillo (2002) & McNeil (2001) & Strong (2001) & Silver (2001) & Perini (1996)

2. Teachers' characteristics portfolio
3. Teachers' evaluation (Painter, 2000)
4. Teachers' competencies

Applec (1996) & Saeed and Mahmood (2002)

5. Teachers' effective quality (Strong, 2002)

All above phrases and terms and their repetition in different studies indicate the importance of this issue in educational systems of various countries.

4-1. Reviewing teachers' standardization resources and conceptual models

Studies in leading countries indicate that there are different models and

variables to measure teachers' capabilities and merits through standards. Here some of conceptual models are mentioned as follow:

1. Colorado Department of Education
2. Deming and Crosby TQM model
3. Farhad Analoui teachers' training styles model
4. The model of evaluating the competencies in Ontario, Canada
5. Wubbles and Levy Model
6. Doolittle teachers' portfolio Model
7. Teachers' portfolio model
8. Houston teachers' competencies model

4-2. how are the standards achieved?

Answering this question is both hard and critical. It is hard because there is no unique method to determine the standards and is critical because in this process, many cases and different resources are referred as standard-determining resources. Fundamentally, one can achieve standards through one of the following ways:

1. Evaluating the conditions of different countries in the world, particularly, successful and leading countries in education field and calculating the means and averages. For instance, calculating the ratio of students to teachers in developed countries and using it as an ideal standard/ criterion.
2. Least satisfaction level. It indicates that in what cases the qualities and quantities meet least satisfaction level. It is particularly true in physical standards. Its flexibility is too limited in different countries.
3. Scientific findings. It points out the scientific findings about standards. For example, ideal characteristics standards for teachers, principals, training method, etc, are highly dependent on the efficiency of such criteria that are essentially extracted from researches and the ideas of scientists and connoisseurs.
4. Negotiation, counseling and agreement are the most common ways for determining the standards. In many countries, standards are determined through counseling and negotiation. Here, standards are defined via a contributive or counseling process. When defined and renovated, the standards will be announced to schools in order to be executed. Usually, the standards are revised and renovated by international bodies in

every 3-10 years.

The most important reasons for developing the standards are as follow:

1. Drawing an ideal picture about each educational element and moving toward them.
2. Providing a measure to assess educational and research performances.
3. Developing and improving the quality of teachers' activities as the leaders of education.
4. Determining destructive factors in education (whether in input, in process, in output). And taking clear initiatives to remove them based on current needs.
5. Making a common sense in educational various activities.

5. Summary and conclusion

In analyzing between standard subject and considering it in human resource discussions especially considering it in education field (regarding existing global changes), the deep gap in informatics & virtual world and what is described as a human resource standard, a few issues should be noticed. Firstly, paying attention to the quality of teachers and educational authorities is at the top of educational improvement. In addition to be among the best persons, the teachers should possess the best trainings, skills, capabilities and ideal standards. Aflatoon said: "Let your children treated by the best individuals because that treatment resulted in treatment and do not represent them to maidservants because that they will be grown as maidservants" (Shokuhi, 1994).

Secondly, effective training/ education is considered as a critical element in the schools' success and it is believed that these are the teachers who build good schools.

Recent studies mentioned in this article show that teachers' training quality is the most effective element in students' learning. What does quality mean, anyway? How can we improve teachers' efficiency and evaluate them correctly? Do we need standards to issue a teaching certification and if there is a suitable level of standard, isn't it the time to develop better standards , to prepare measuring tools and then use them to measure teachers' merits based on their progress and rational success in teaching, behavior and performance.

Moreover, isn't the time ripe to identify ineffective teachers and help

them and send effective and competent teachers to deprived regions while considering security, equipment and safety issues? Isn't it the time to reconsider the traditional/ semi traditional methods of certification issuance as insufficient and think about other methods?

Today, in human resource standards, especially teachers, criteria and indicators are mentioned and teachers are called "permanent learners" (Carol Tell, 2002).

Finally, it is believed in teachers' standardization that they are the full time members of learning societies who should move towards gaining more qualifications day by day. It will be possible if certain steps higher than current ones with open, clear and far horizons to be taken.

It starts from conceptual and comparative studies which the author has tried to explain them on the basis of his own academic and research experience.

References

1. Apple, M. W. (199). Teacher Assessment Ignores Social Justice, Education Digest, p. 25
2. Carol Tell (2002) "Ensuring Teacher Quality". Fostering High Performance of Respectability. Infobief. ASCD, pp. 1-12.
3. Carol, Tell (2000), "Assurance teacher's work". Translated by Tayebeh Imam Jomeh. Kashan. Training Technological Journal. Volume 4, pp. 8-9.
4. Castillo of Desavt-Magdalono (2002). "Standardization of Standafr-Based-Instruction". Available: www.airs.brown.eduzooz P. L. 2.
5. Doolittle, Peter (1994) Teacher Portfolio Assessment, ERIC, p. 22.
6. Fathi Vajargah, Kourosh (2000), Standard School. Tehran. Fakher Publications, pp. 22-23.
7. Gholam Hossein, Shokuhi (1993) "Principles and Basics of Education". Educational Science College, Tehran University, p. 30.
8. Harris of Carr (1996). How to use standards in the class room. The Center for Curriculum Renewal. P. 3
9. Khanifar, Hossien. "Standardizing human resources as the productivity factor in education". Hambastegi Journal. Cultural section, 2002, p. 6.
10. Mehrdad, Yeganeh (2000), Standard and standardization. Tehran: the Iranian Center for Industrial Training and Researches, pp. 14-25.
11. Moqimi, Seyed Mohammad (2003). "The standards of teachers and principals in Iranian kindergartens", Tehran: Education Ministry, Quality Improvement and Standard Guiding Office, pp. 190-204.
12. Painter, Suzan (2000) "Principals efficacy beliefs about teacher evaluations". Journal of Education Administrations. Vol. 38, no. 4.
13. Postman, Neill (1997) "life in pleasure death in happiness" Translated by Javad Tabatabaeei. Tehran: Soroush, p. 42.
14. Quarterly et al (2002), "the need to training reforms". Global training news. Third year. Volume 3, pp. 57-58
15. Ronagh, Yusef (2000) "Work study and job standards". Tehran. Public Management Training Center, p. 64.
16. Saeed M. of Mahmood, K (2002) "Assessing competency of Pakistan Primary school teachers in mathematics, science and

pedagogy". The International Journal of Education Management. Vol.16. no. 4, p. 192.

17. Strong and Silver of Pervini (2002) Teaching What Matters Most Standard and Strategies for Raising Student Achievement. ASCD.
18. Strong, James (2002). Qualities of Effective Teacher. ASCD, p. 1.