

## A Comparative Approach to Performance Evaluation of University Professors

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**Abstract:** The following research investigates a comparative approach to performance appraisal of university professors, professors in compare with educators. In order to go on through this research, we have developed an instrument which is a questionnaire That includes 16 indicators of teaching performance. This questionnaire satisfies a reliability of %70 according to the Cronbach's Alpha. Statistical population chosen for the research is B.S. students of the Shahrood University of Technology. In summary, this research indicated that from the point of view of the students, in 12 indicators, the university professors did make it better in compare with the educators. In 1 indicator, the educators were in higher rank and finally in 3 indicators, no meaningful differences were found.

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### Introduction

Planning and performance appraisal in higher education is one of the main functions of university management.

In order to achieve objectives in this system, the performance appraisal must be viewed as superior entity to other university management practices. (Bazargan, 1997). This will cause reaching to suitable expected goals by using resources more effectively. Therefore, the university system should continuously make judgment about suitability of its inputs, process and output. As a result, it should provide some sound bases for decision makers in the field of education, research and specialized services to the society. The remedy for reforming any system without recognition of its inside, outside and changes is not possible. That means a continuous appraisal. Appraisal will only give us optimum result, whenever the appraiser is one of the stake holders in the system. (Bazargan, 2001). In despite of enormous influence of Information Technology and different types of mass media, still using of appraisal system through receiving students opinion remains as a proper method for quality improvement and appraisal of professors within the higher educational systems.

### Appraisal of Higher Education

Higher education appraisal is defined as a process of determining, preparing and collecting data and information needed for making judgment about elements of higher educational system in order to make decision for any improvements ( Bazargan, 2001 ). Therefore, higher education appraisal is a tool for achieving objectives in higher education system. In general, expectation from higher education is that it does the five basic functions; teaching, learning,

research, search for knowledge and university administration with related services to the society. In order to accomplish such objectives, the higher education management functions should be evaluated. These functions include ; planning and development of higher education, organizing higher education, directing and leading of higher education and appraisal of higher education (Bazargan, 1995). Approaches to the higher education appraisal are;

1.Internal appraisal, 2- External appraisal, 3- Using of performance indicators, 4- Feedback from student and other relevant people, 5- Knowledge and skill test for the educated (Bazargan et al. 2000 quoted from Harman, 1996).

In these approaches, the internal and external appraisals have a theoretical framework in which enable us to make changes within the training groups as well as the higher educational institutions by preparing a suitable conditions for change.

### Literature Review

Higher education appraisal in the United States goes back to a century ago. Organized efforts to coordinate quality improvement in higher education in U.S. began from years ending the 19<sup>th</sup> century and 1<sup>st</sup> decade of the 20<sup>th</sup> century. These efforts have been considerably increased in 1950-1960. In the coming decades, the concept of quality and its improvement for goods and services has been center of attention and gradually this concept find its way into higher education as well.

The Total Quality Management (TQM) also has become an important subject in higher education in the United States. (Bazargan, 1999).

In European countries during 1980 - 1990 and in line with creation of European Union, coordinated

efforts took place in order to prepare proper means for improvement and quality assurance in the higher education. Since 1995, in France, England, Denmark, Finland and Ireland, special institutions were established just for higher education appraisal.

Among Asian countries, South Korean and Indian experiences in appraising higher education were more coherent and stable. Also in Iran, some efforts have been taken for making judgment about quality of higher education system and its continuous improvement through implementing a pre-research proposal in the medical education which started in 1996. Due to its success, the internal appraisal for all the medical groups in more than 30 universities was implemented. In line with implementation of regulation related to the third "5 year development plan" law, the science, research and technology ministry has made efforts to start the internal appraisal since 2001.

### **Faculty Appraisal (Educators & Professors)**

For the first time in the world, the Harvard University students find an opportunity to appraise their professors officially in 1924. In Iran, students from the Hamedan University were the first to appraise officially in 1971. Today, most universities in the world, completing a appraisal form for the professors has become as a university official regulation and has been recognized as one of the higher education laws. (Ahmadi, 2004).

For this purpose, several different methods have been suggested for the professors appraisal. Job interview, test of knowledge, attitude and skill, colleague's opinion, classroom observation, student's feedback about the training process, professor self evaluation and review of any progress regarding professionalism and acquired special skill by the faculty member are the most common type of appraisal system used so far (Bazargan, 2001).

Philosophy and the intension for the faculty appraisal can provide us useful indicators for faculty, students and quality of the system evaluation considering if the faculty appraisal will be accomplished on the bases of the value system with the participation of the interested parties. This can create a feeling of satisfaction, support, decrease feeling of hopelessness, personal development and growth, increasing competency, effectiveness, excitement, pleasure, active participation, developing talents and increasing ability for teaching. (Ahmadi, 2004 quoted from Perkins, 2000).

### **Appraisal By Using Student's Feedback**

Student's feedback as a method of appraisal for teaching has been widely used around the world with considerable growth and assumed to be the most commonly method available. For example, regular

application of such method is a common practice within the American universities at the end of each term. It is unlikely to find a university that does not use student's feedback as a means of teaching appraisal. (Nasr Esfahani, 2004 quoted from Centra, 1993).

Appraisal by using student's feedback in Iran also has been taken into considerable attention recently and has been accepted as a basic policy in most universities. For example, planning several training courses, running workshops in this subject and paying attention to the details of scores recorded for the teachers in the teaching appraisal forms show the important of this approach as a indicator for its promotion within the university hierarchy system.

Some of the strong points in getting feedback from the students are as follow: validity of findings, relatively low cost and ease of implementation, using first hand observation from student and accomplishing main objectives of appraisal; namely, teaching improvement, promotion and encouragement of teachers, course selection by the student and related researches. Of course, some criticisms have been made to the student appraisal. These include, lack of agreement on effective teaching criteria, lack of agreement on teaching concepts, student's lack of skill in appraising of some the teaching fields, lack of proper instruments, implementation methods and analysis. (Nasr Esfahani, 2004).

With consideration of strong and weak points in the student's appraisal, It is better to use other techniques along with student's feedback for gaining a clear and complete picture of teaching quality in order to acquire sound bases for making judgment.

Further more, It should be noted that efficiency of this approach depends on a lot of factors including suitability of used instrument and a fair student's report about the teaching (Nasr Esfahani, et al, 2004).

### **Describing the Problem**

Quantitative spread and growth of higher education without any consideration to the quality will create problems such as school leaving, surplus of specialized human resources in some fields and finally loss of human and as well as financial resources (Ghorcheyan, 1994).

Experiences resulted from the evaluations on the national and international levels shows that application of internal quality appraisal system had a considerable effect on the continual improvement in teaching activities, appraisal parameters such as faculty member, students, teaching process and learning. These have had important role in the quality improvement of higher educational system because they caused some task reforms and compensated deficiencies (Bazargan, 1996).

In this study, the main question is that whether there are any significant differences between the student's views on teaching performance of the educators (Holder of master degree) compare with the associate professors (Holder of Ph.D degree) and higher from factors and indicators such as; proficiency in the theoretical and practical subjects, teaching methods, adequacy and being up to date about teaching resources, creating research motivation in students, accessibility to the teachers and other issues?

Finally, the findings of this research could be used as a bases for the continual quality improvement in the higher educational system and universities in the country.

The scientific evaluation of ministry of science's policy with regard to employment of educators for the universities is also point of attention of this study. The higher education section of the " Third Development Plan " stated that the necessity of reform within faculty member hierarchical system should take placed.Also, with consideration that recruitment of needed employees for most fields in the past years were by the educators, then, it has been decided that;

1.All the universities, higher educational and research institutions related to the ministry of science are not allowed to recruit any faculty member with the educator level.

2.Any changes from the educator level to the faculty level for the employment status of all the university and higher educational and research institution related to this ministry is not allowed. Of course, if necessary situation arrives and when ever the university authorities insist on employing an educator, they have to get permission after sending a report justifying the reasons for recruitment. Although, with an exception, in the field of Islamic theology, the employment prohibition for the educator has been removed.

The main question of this study is that whether or not the effectiveness and performances of educators and assistance professors based on the student 's point of views have any significant differences ?

### Research Design

Based on research objective, this is an applied research. The research findings can be used in universities for faculty employment, but from data collecting, this study could be considered as a case – driven descriptive survey.

### Statistical Population Sample

The studied statistical population sample includes undergraduate students from the Shahrood University of Technology. Based on the research data, the university educators were 30% of total faculty member. The data collection uses a statistical sample of

400 person from statistical population of nearly 3500 students of different departments were chosen by random and rank sampling method.

### Data Collecting and Analysis of Research Data

A questionnaire has been used for collecting required research data. This questionnaire has 16 indicators which was extracted from the different faculty evaluation forms existed in the university supervisory and evaluation office. Validity of the questionnaire was tested by using Cronbach's Alpha method which was estimated to be 70%. This indicates a high validity for a measuring instrument. For analyzing of the research data, the SPSS software and Test of mean comparison method between two statistical population were used. Stages for the statistical hypothesis testing of statistical mean pair includes hypothesis definition of H1 and H0, determining test domain in expected confidence level, calculating test statistic, determining critical value and finally the decision making.

### Research Findings

Further, the educators and assistance professors were compared according to the 16 research indicators :

The first indicator; Competency in theoretical subjects

First stage: Defining of hypothesis H1 and H0

For Indicator of proficiency in theoretical subjects,the mean score for educator and professor are equal.

$$H_0 = \mu_1 = \mu_2$$

For indicator of proficiency in theoretical subjects, the mean score of educators and professors are not equal

$$H_1 = \mu_1 \neq \mu_2$$

The second stage; Determining test domain in confidence level of %99.

The third stage; calculating the statistical test

$$t^* = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{SP \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} = 6.405$$

The fourth stage; Decision making (Result). Since the statistical test (t\*) in H1 region is positive with %99 confidence, it can be stated that Hypothesis H0 is rejected. Namely in respect to proficiency in theoretical subjects, the assistance professors are superior to the educators. For other 15 indicators, the above stages have been repeated and the result are shown in following table (Table 1):

Table 1. Comparison table of research indicators between the assistance professors and the educators

Indicators	No Significant Difference	Superiority of Assistance Professors	Superiority of Educators
1-Proficiency in theoretical subjects		1	
2-Power of speech and understandability		2	
3-Teaching methods		3	
4- Teacher accessibility			4
5-Adequacy of teaching resources		5	
6-Being up-to-date in teaching resources		6	
7- Students evaluation		7	
8-Teacher interest in answering student questions		8	
9- Proficiency on scientific and laboratory practices		9	
10-Power of speech and transferring concepts		10	
11-Creating research motivation in students		11	
12-Paying attention to student's views		12	
13-Matching lab subjects with the theoretical subjects		13	
14-Keeping order and discipline in lab administration	14		
15-Active participation of teacher in the lab	15		
16-Optimum use of lab equipments	16		

### Results

As the above mentioned table, the analysis of results shows that:

- a) From point of view of proficiency in theoretical subjects; the professors are superior to the educators
- b) From the view of the power of speech, understandability and transferring concepts; the professors are superior to the educators.
- c) From the view of teaching methods; the professors are superior to the educators.
- d) From the view of accessibility of teacher; the educators were superior to the professors.
- e) From the view of adequacy of teaching resources; the professors were superior to the educators.
- f) From view of being up-to-date in teaching resources; the professors were superior to the educators.
- g) From view of students evaluation; the professors were superior to the educators.
- h) From view of teacher interest in answering student's questions; the professors are superior to the educators.
- i) From view of proficiency on scientific and laboratory practices; the professors are superior to the educators.
- j) From view of power of speech and transferring concepts to the students in lab; the professors are superior to the educators.
- k) From view of creating research motivation in students; the professors were superior to the educators.

- l) From view of paying attention to the students's views; the professors were superior to the educators.
- m) From view of matching lab subjects with theoretical subjects; the professors were superior to the educators.
- n) From view of keeping order and discipline in lab administration; the professors and the educators did not have any superiority to each other.
- o) From view of active participation of teacher in the lab; the professors and the educators did not have any superiority to each other.
- p) From view of giving the right order and optimum use of laboratory equipments; the professors and the educators did not have any superiority to each other.

### Suggestions

- i. It is suggested that the university supervisory and evaluation office should declare the average score of each teacher gained for each term. In addition, by determining of the strong and weak points of each one based on the mentioned indicators, continual improvement of weak points and strengthening of the strong points of each teacher can be supervised.
- ii. For achieving the higher educational objectives and gaining the satisfaction of its main customers (namely the students), the university should plan and implement continual training courses for upgrading the teaching skills and make the participation of teachers in these courses mandatory along

- with providing financial as well as spiritual rewards for them.
- iii. In each educational term or year, the teachers whom have excellent records or good performances should be identified by the accurate evaluation of indicators such as teaching talent, research interest, ethical conducts and so on. In a special gathering of students and teachers, these selected faculty member should be properly recognized and rewarded in order to act as a motivation and encouragement for other teachers to do harder and better work.
  - iv. Due to trends in new higher education and necessity of reforms in university faculty hierarchy, a medium term training plan is suggested in order to create opportunity for the educators to continue their education up to the Ph.D level. This will enforce and encourage positive psychological, emotional and scientific feeling in them.
  - v. If the situation allows, It is suggested that some of the under graduate or graduate courses which have a mixture of theoretical and practical subjects can be presented jointly by both the professors and the educators.
  - vi. It is suggested that within the universities system, the special and challenging issues of new higher education such as university administration and financial independency, changes in university mission, globalization, creation of new knowledge, quality assurance and so on become focus of attention in order to be able to absorb financial support for the related research activities as well.

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