

Assessment Criteria of Effective teaching of Expert Teachers based on occupational health students' viewpoints in Tehran University of Medical Sciences

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ABSTRACT

Notating the criteria of an expert teacher based on the students' viewpoints and using them in teaching process has a prominent role in enhancing the education quality. This study aims at identifying those characteristics in occupational health students' opinions. In this cross-sectional study in 2012, using random sampling method, 200 of occupational health students in Tehran University of Medical Sciences were selected. Requirement data collection was using a questionnaire with $\alpha=0.85$. The questions were designed in two domains, demographic and expert teacher criteria. Finally, data analysis was carried out through SPSS software version 16. Results showed that before, after and current education of four domains ability, features such as analysis method and text selection (81.4%), accurate and comprehensive examination in final (80.2%), dominance over the scientific subjects (91%) and in general, abilities, educational discipline and manual (86.4%) were respectively recognized as important factors for experted teacher. Moreover, no significant relationship was found among gender and field of study and the above mentioned four domains ($p>0/05$). In this study, teaching ability was the most important factor in students' viewpoint; hence, it is recommended that the mentioned points should be taken into more consideration in this domain for enhanced teachers' operation.

Keywords: Expert Teacher; Education Quality; Occupational Health Students

INTRODUCTION

Teachers, students, and educational systems are the major factors that have great impact on the quality of education. These factors are integrated in nature and have to be considered as a whole. [1]. Students can have significant role in improving the quality of education [2]; quite so, one of the recommendations of the Medical Education Conference in Edinburgh in 1993 was involving the students in all levels of education [3]. Moreover, teachers are the most fundamental factor for success in achieving educational goals to control different variables, leading to learning improvement [4]. The teacher creates an environment where student can be awarded, and

where their potential skills and act toward their professional and personal abilities are recognized in the best possible way. These changes are done through teacher desirable features [5]. In order to know these features, surveys should be performed for evaluating the success of teachers in achieving their educational goals through asking students' insights and ideas over the educational matters and the qualities of a good teacher. 6-7].

Different methods for the purpose of evaluating the teachers are available, but the best way is accomplished when the criteria is determined by the students and the results are used in the quality and credibility improvement of an organization [8-9]. Nevertheless, many people believe that the

this method of evaluation of teachers by students is not a valid one since it is mostly subjective and is not consistent with the norm [10] while some people believe that students are the most important element in evaluation of teachers because they are the ones with the closest relationship [11]. In many studies, it is stated that some parameters such as teaching experience, ability to communicate, ability to provide information in easy way [4, 12-14], determination and severity, interest in learning [15], having good moral, respect to the personality of the students [16], flexibility in the classroom, the use of teaching aids [17] and also creating discipline and self-confidence in students [18] have the greatest impact on positive evaluation of teachers. Reports indicate that a good relationship between students and university faculty members is the result of mutual trust and awareness of the ability of both groups and can lead to students' academic achievement and increase in their motivation of studying [14]. Thus, considering the importance of knowledge of the characteristics of a capable teacher as a necessary factor for improving the scientific level of students and the efficiency of educational institutions, this study is aimed at considering the opinion of students of the Faculty of Health, Tehran University of Medical Sciences about the criteria of an expert teacher and using the results to improve the teachers' performances in educational settings.

MATERIALS AND METHODS

This cross-sectional study was performed in 2013 on 200 undergraduate and graduate students of engineering Occupational Health in Tehran University of Medical Sciences through randomly random selection. All participants agreed to enroll in this survey and they informed that their participation is both voluntary and anonymous. In this study, data collection was performed by a two-part questionnaire. The first section contained general questions of demographic nature, such as education and gender, and the second part consisted of 37 questions related to the criteria required of a capable teacher to effectively teach, in four-component: capabilities (7 questions), the ability before teaching (10 questions), the ability during the teaching (16 questions) and capability after teaching (4 items). Questions in the

questionnaire were in a five-point Likert scale, as "trivial, unimportant, moderately important, very important," with scores of 1 to 5. The highest points earned were about 5 and the lowest score was 1. Validity of the questionnaire from experts' view and its reliability with Cronbach's alpha coefficient ($0.85 = \alpha$), had been approved in previous studies [16]. The questionnaire was given to people, and was completed through self-reporting method, and after data collection, using SPSS software version 18, through descriptive statistics and t-test, the data were analyzed.

RESULTS

The results of the completion of 200 questionnaires showed that 40% (equal to 80) of the participant in this study were male and 60% (equal to 120) were female; 82.5% of the total were under-graduate and 5.17% were MA students. The results of this study showed that based on the views of Occupational Health engineering students of Tehran University of Medical Sciences, in the field of ability before teaching, knowledge of methods of analysis, and selection of content with 4.07 was highest score and knowledge of the methods of developing learning goal had the least importance with 3.92 score.

In addition, ability during the teaching with the score of 4.55 and the proper use of teaching aids with the score of 4.06 have the highest and lowest importance, respectively. In the field of abilities after teaching, accurate and comprehensive exam at the end of the term, with score of 4.01 had the highest, and mid-term exam and stage, with the score of 3.78 showed the least importance. Characteristics that gain the highest score with mean score and standard deviation are shown in table 1.

Table 1. Characteristics that gain the highest score

Characteristic	Mean and SD
domination on the subject	4.55± 0.75
presenting new scientific topics	4.33± 0.79
educational discipline	4.32± 0.95
adapting the content with student's needs	4.31± 0.95
maintaining the character and the respect to students	4.30± 0.88
linking between educational goals and the material presented in class	4.29± 0.91

And finally in general domain, discipline and training regulation with 4.32 had highest score and outward style with the score of 4.04 was the least important. In all the studied characters, domination on the subject (4.55 points), presenting new scientific topics (4.33 points), educational discipline (4.32 points), adapting the content with the student's needs (4.31 points), maintaining the character and the respect to students (4.30 points) and the link between educational goals and the material presented in class (4.29 points) had the most importance.

Table 2. Characteristics that gain the lowest score

Characteristic	Mean and SD
awareness about the ways of developing learning	3.92± 0.92
awareness of the theories of teaching	3.89± 0.96
student assessment before, during and after teaching	3.84± 1
mid-term exam and stages	3.78± 0.65

On the other hand, awareness about the ways of developing learning goal (3.92 points), awareness of the theories of teaching (3.89 points), student assessment before, during and after teaching (3.84 points) and mid-term exam and stages (3.78 points), as features of a capable teacher to teach effectively had the lowest importance. Characteristics that gain the lowest score with their mean score and standard deviation are shown in table1.

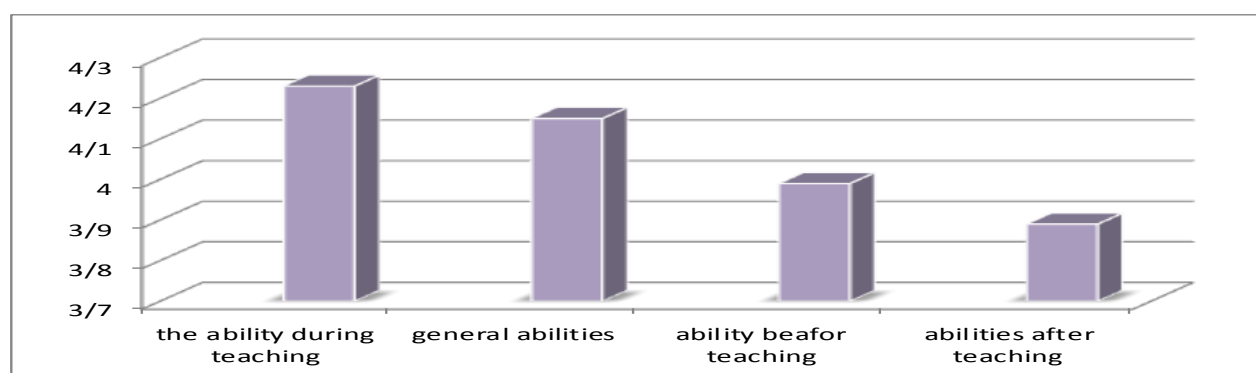


Figure 1. Compare scores of four examined domain in this study

From the four examined scopes, the ability during teaching (4.23 points), general abilities (4.15 points), ability before teaching (3.99 points) and abilities after teaching (3.89 points) had the most importance on student's viewpoint, respectively. These four domains are listed in figure 1. In addition, the results of t-test didn't show a significant relationship between gender and education in the four selected domains ($P > 0.050$).

DISCUSSION

Education is one of the main duties of any university as it is so for teachers as well. Clearly, they lead to the improvement of the quality of education [19-20]. Therefore, understanding the characteristics of a good teacher is important from student's point of view [21]. Considering the important role of occupational health experts in order to help the health of employees in factories and manufacturing units which are a large portion of the workforce in the world [21], and their educational role to enhance performance of human force and help the economic which directly depends on correct learning course

topics during training at the university, the ability of teachers in the path of improving students with their learning in this field becomes quite prominent. The occupational health experts in the workplace should teach the staff the correct way of performing their work as well as the principles of safety, health and ergonomics [22-23]. Therefore, in this study, we investigated the characteristics of a capable teacher, from the occupational health students' view; these views and insights can be effective in their learning, and are helpful for workers in the workplace. The results show that from the occupational health students' views, the most important factor in the ability before the teaching domain is knowledge of the methods of analysis and selection of content, which is similar to Dargahi et.al (2011) results of the study in 2009 [16]. In addition, in the ability during the teaching domain, domination on the subject earned the most points. Barlow et al. (2002) found that the essential characteristics of a good teacher is his knowledge on the subject [24] and Mandira et al. (1996) in her study concluded that knowledge of the subject is one of the most prominent characteristics of the capable teachers [25]. In addition, Ghorbani et al. (2009), and Ekrahi et al. (2006) in their study on a large group of students achieved similar results [15,-28]. It should also be noted that strong leadership for teachers in the classroom can affect the learning process [4] and therefore, strengthening leadership methods among teachers can have a significant role in student learning. In this study, within the characteristics of a capable teacher in ability after teaching domain, the highest point was given to taking a complete and accurate exam at the end of the semester which was consistent with Dargahi et.al (2011) and Sharifi et al. (2002) study results[16, 28]. Dargahi et.al (2011) believes that students generally do not like frequent examinations during the semester, and tend to have a final exam. Nevertheless, Jahan et al. (2008) in his study concluded that in students' opinion, the evaluation of students has moderate importance [28]. Moezi et al. (2010) and Dargahi et.al (2011) in their research concluded that there was no significant association between gender differences in students' view in relation to the desirable features of a capable master [29], which is consistent with

the results of the present study. Peyman et al. (2011) reported no significant differences among men and women in the importance of research activities and other characteristics of a capable teacher [30]. Mazloomi et al. (2010) [4] and Vahabi et al. (2007) [31] results are in harmony with the results of this study, and state that no significant relationship exists between the level of education and students' opinions about the features of a capable teacher. Unlike the present study in which discipline earned the lowest point, the results of Sharifi, Navabi et al. (2010), Ashtiani et al. (2001) and the Javadian et al. (2004) study showed that respect to start and the end of class was one of the desirable features of a capable teacher. Based on the findings of these researchers, the on time presence in the class was considered an important factor in the evaluation of teachers by students [17,33-35]. Outward style in this study earned a low point, which was in complete contrast with the studies of Hekmatpou et al. (2013) [18], Mazloomi et al. (2010) [4] and Yousefi et al (2007) [36] et.al, which considered this factor as one of the most important factors, affecting the students' view towards the ability of teachers. Moreover, the result of this study showed that the use of teaching aids, in the ability during the teach domain earned the least importance, which was consistent with results of the studies by Javadian et al. (2004) [34], Navabi et al. (2010), [17] and Moshiri et al. (2010)[37].

CONCLUSION

Different studies showed that students' opinion over the characteristics of a capable teacher is controversial. Considering different studies which have shown different characteristics for a capable teacher, it is necessary to try to find a common students' opinion about the desirable features of a capable teacher. It is of utmost importance to be able to develop a valid and reliable instrument for decision making in educational institutions, and for choosing appropriate teachers. Choosing a proper method of evaluating the performance of teachers ultimately leads to improving the quality of student learning and continuous improvement of the economic and social situation of our country.

“The authors declare no conflict of interest.”

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