

# The comparative analysis of satisfaction rate among the public universities talented students with education and all the services provided to them

Shaghayegh Nikneshan, Nikoo Yamani<sup>1</sup>, Azam Moghadam<sup>2</sup>, Ahmadrza Nasr

Faculty of Educational Sciences and Psychology, The University of Isfahan, <sup>1</sup>Department of Medical Education, Medical Education Research Center, Isfahan University of Medical Sciences, Isfahan, <sup>2</sup>Allameh Tabatabai University, Tehran, Iran

## ABSTRACT

**Introduction:** Universities provide different facilities for talented students. The aim of this research was to comparatively examine the rate of satisfaction among the talented students with the services offered to them at different Iranian universities. **Methods:** This was a survey study in which a researcher-made questionnaire was used to collect the data. The statistical population of this research consisted of all the talented students at four universities who had been admitted at these universities from 2003 to 2009. Using the formula, the total number of samples was estimated to be approximately 328. **Results:** The research findings indicated that the talented students did not have satisfaction with the educational situation, and no statistically significant difference was observed among the different universities with regard to this issue. **Conclusion:** According to the findings it is suggested that universities offer more financial facilities for research, and attending conferences, and provide rich-content and valuable classes, and active and creative teaching methods. It is also proposed that educational workshops on detecting talented students and the manner of dealing with them be convened for faculty members.

**Key words:** Educational services, talented students, university

## INTRODUCTION

Growth and development of the society in different dimensions and the eventual achievement to sustained development are dependent on the investment of society on human force and, accordingly, the quantitative and qualitative promotion of universities is highly significant due to their fundamental role in training the human force. One

of the pivotal bases at universities is the issue of education and teaching/learning processes, which enjoys a particular significance with regard to talented students. The crucial point is the difference of these students with the ordinary ones. On one hand, it is all peoples right to receive education with proportion to their capabilities and aptitudes. Thus, recognizing the principle of individual differences is one of the maxims of educational equality, and this issue has highlighted the need to having different curricula for these students. On the other hand, brain drain is one of the most important challenges of countries, especially Iran, which has led to an increase in immigration abroad and has deprived the country of these valuable human resources. In order to achieve this aim in recent years, different universities in Iran have opted for offering a series of services to students, including the educational, financial and consultative ones. The researchers in this study intend to assess the level of general satisfaction among these students with regard to the offered services. Identifying the rate of satisfaction with these services can be useful in modifying or improving these activities. In addition, using the results of this research allows other universities to

**Address for correspondence:** Nikoo Yamani, Department of Medical Education, Medical Education Research Center, Isfahan University of Medical Sciences, Isfahan, PO Box: 81745/353, Iran. E-mail: [yamani@edc.mui.ac.ir](mailto:yamani@edc.mui.ac.ir)

### Access this article online

Quick Response Code:



Website:  
[www.jehp.net](http://www.jehp.net)

DOI:  
10.4103/2277-9531.99961

Copyright: © 2012 Nikneshan S. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

This article may be cited as:

Nikneshan S, Yamani N, Moghadam A, Nasr A. The comparative analysis of satisfaction rate among the public universities talented students with education and all the services provided to them. *J Edu Health Promot* 2012;1:26.

move toward the comprehensive development of the country by providing similar services with higher levels of quality for talented students. Thus, the two following aims will be pursued as the pivotal research objectives:

Assessing the rate of satisfaction among talented students with regard to the offered education and relevant services to them at university and assessing the rate of difference of ideals among talented students by virtue of the services offered to them at different universities.

## SPECIAL EDUCATION SERVICES FOR TALENTED STUDENTS

In what follows, a series of explanations about special educational services for talented students in the area of compiling the curriculum, the type and quality of content, teaching methods, characteristics of professors and evaluative methods for these learners are presented, and then the research methodology and findings will be elaborated on. In this regard, Baska (1998) believes that we must highlight five factors when we want to go through lesson planning for talented students: (1) learning the principles and concepts, (2) using technology, (3) individual research and learning, (4) high-level thinking and (5) learning based on problem solving. Similarly, Tomlinson (1995:10) states that the curriculum for the talented students must enjoy some features that include: (1) encourage exploratory learning, (2) it must emphasize definite problems, (3) foster critical thinking, (4) be based on learners' interests, (5) be interdisciplinary and intertwined, (6) be learner-centered, (7) encourage creative thinking, (8) encourage self-evaluation among learners, (9) include the main principles and skills of the intended major and (10) it must encourage logical and intelligent reflection.

In order to materialize these features, professors and teachers ought to have a sense of responsibility in creating appropriate learning opportunities; their understanding and interpretation of programs must be developed and, at the same time, have flexibility. Moreover, they must have complete awareness about the lesson topics and classroom management.<sup>[1]</sup>

By considering what has been already mentioned, each of the components of curriculum, including content, professors' characteristics and teaching and evaluation methods, can play a significant role in educating and training individuals who are talented. Each of these components is elaborated on in what follows:

### Content compilation and selection

When selecting the content, program designers must make all the necessary decisions about the volume, kind and the structure of content. By considering this point that making wrong and unrealistic decisions in each of these three areas can bring about damage in learners' learning, the utmost level of care must be maintained. Therefore, some explanations about each of these areas are presented in the following sections:

### Content volume

The everlasting growth in human knowledge at different branches of sciences affects the content in two ways. On one hand, most of what the students learn now will be totally transformed in the next few months or years and, on the other hand, new findings will replace them.<sup>[2]</sup> In other words, human's scientific developments and achievements have not only provided a vast body of information for presentation but they have also brought instability and inconsistency due to continuous advancements and innovative changes so much so that this phenomenon is named nowadays as information explosion.<sup>[3]</sup>

The expansion of human knowledge and the increase in its potential have led to this situation that students in different courses are expected to memorize a great deal of knowledge, and this has compelled them to try superficial learning.<sup>[4]</sup> Superficial learning is the same thing that is often referred to as parrot learning or bank learning. Learning in this way does not have any scientific merit, and it eliminates creativity in learners. Most authorities have recognized emphasizing on content quality rather than its quantity as the main solution for this problem. Therefore, the deep learning of materials alongside the appreciation and understanding of curricular subjects are replaced by superficial learning.

### Content type

With regard to accepting the principle of paying attention to individual differences, different curriculum content must be provided for individuals with special talents. Based on what has been mentioned, certain measures have to be adopted for compiling the content for them. Renzuli— mentions a process called “compressed program” in content design that allows talented students to go ahead rapidly. There are three stages in this method, which include:<sup>[5]</sup>

Identifying the rate of learners' prior knowledge (applying the diagnostic test), summing up and compressing the remaining concepts and skills, and providing and presenting the already-enriched situations.

Another reliable method that can be applied for addressing the principle of individual differences is the presentation of individual programs and, consequently, a different and individual content to talented students. The heavy cost incurred by this method is its only defect. In Foadgar's (1998) idea by using the methods of complication and innovation, we can implement individual programs for these learners. Complicating the content motivates the talented students to appreciate the higher levels of thought that are usually tough or even impossible for ordinary and same-aged learners to understand. The main objective is to encourage the learners to apply the abstract and ambiguous materials alongside scientific rules or general principles in many situations.

The intention behind content innovation is the presentation of materials that are not usually included in the general curriculum due to time limitation or the abstract nature of

lessons. The aim of innovation is to assist talented learners to get proficient over main ideas. In this method, the talented learners will be enabled to discover the ties existing among different disciplines. This means that teachers are able to present one or two examples of an abstract nature. This encourages the learners to suggest other materials based on it.

### Content structure

Within the curriculum proposed for the talented learners, the structure of content must undergo changes like the kind and volume of content. Inflexible and pre-determined structure and organization cannot respond to these learners' special and unique needs. Thus, the researchers in curriculum design believe that using intertwined and flexible content, alongside interdisciplinary organization in programs related to talented learners, are quite essential. This point is elaborated on more in what follows.

### Applying the integrated content

The most common way for organizing the curricular materials is to set them around the curricular subject. Hence, materials are organized carefully within the framework for one lesson, and all lessons will be taught separately. This kind of organization is in fact irrelevant to the real life and occupational world of learners, and is the biggest obstacle in compiling a curriculum that could aid learners in acquiring the materials that are necessary for individuals and societies. In other words, the compiled curriculum is irrelevant to learners' interests and requirements.<sup>[6]</sup>

### Flexibility

As mentioned in previous sections, the formal structure of curriculum cannot address the perpetual need of learners to learn. With regard to the designed curriculum for the talented learners, it seems quite logical that we must dispense with excessive emphasis over the formal structure and pre-planned units and, instead, adopt some measures for creating flexibility in the compilation and presentation of content. Flexibility can be effective in presenting the units, time and place and also on the students' admission and graduation. Programs like precipitation, enrichment or all other proposed programs for talented learners would not be executed in case of having no flexibility.<sup>[7]</sup> Currently, one of the biggest problems with the educational system of university is the absence of the flexibility principle. The talented students are supposed to pass the lesson units, or credits, in the same way as all ordinary students according to a pre-planned sequence and also observe the passing of pre-requisite credits. Nonetheless, due to the presence of special and unique capabilities within these learners, it seems unnecessary to pass such a hierarchy.

### Interdisciplinary organization

By attending to the already conducted researches, one of the most fundamental conditions of ideal planning for talented students is the observance of the interdisciplinary organization.<sup>[8]</sup> This kind of organization creates relationship among different lessons and gives unity to scientific disciplines by homogenizing them in exploring one issue or problem.<sup>[9]</sup> Karimi believes

that interdisciplinary study results in the deepening of insight and expansion of students' potential capabilities in skillfully organizing and implementing the knowledge.<sup>[4]</sup>

### Professors' characteristics

Professors and teachers are considered as one of the most important elements in the educational process for talented students and are able to address the unique requirements of these learners if they are familiar with the special characteristics of this group of learners. In Hoover's idea, successful professors for educating the talented learners must be able to create the required motives in their learners. In addition, they must strive to reduce these learners' anxiety and stress and encourage creative and divergent thinking in them. In his idea, most professors have serious problems in dealing with challenging activities and making unison between these activities and learners' learning interests and styles.<sup>[10]</sup> In this regard, Archambult states that researches approve of this point that talented students spend most of their time passively in classrooms and face with advanced situations or challenging lesson credits averagely once a month.<sup>[11]</sup>

In Johnson's belief, the professors who work with talented students must be eligible and qualified at least in some fields. Among these fields, familiarity with learners' personalities, awareness of their growth rate in different respects and familiarity with learning methods and styles are mentionworthy. They must be particularly familiar with the curriculum and the skill of establishing social interactions and relationships with learners. Generally, these abilities are placed into two groups of knowledge and information (the fields of specialty and what professors and teachers ought to know) and skills (what professors must be capable of doing it).<sup>[12]</sup>

By virtue of familiarity with curriculum, the talented learners' professors must have partially good familiarity with the curricular theories and researches that have been conducted about the learning experiences of talented students. According to Johnson's conviction, professors must be equipped with the skills for the continuous assessment of programs to achieve goals. They must emphasize on abstract thinking, peripheral thinking, problem solving and reasoning in their teaching and curriculum; at the same time, they must be equipped with this type of thought (ibid).<sup>[12]</sup>

### Teaching methods effective for talented students

The social, political, cultural and economical development in every society is dependent on the specialist forces of that society who have been trained by the educational and training system and universities. Hence, the quantitative and qualitative promotion of schools and universities is mandatory. One of the main bases at schools and universities is the issue of education and the teaching/learning process. With regard to the great speed of sciences, increase in information volume, development of technology and entering into the post-industrial era, it is necessary to coordinate the learning/teaching process at schools and universities with

these transformations; in other words, we must move from the traditional strategies of information transmission toward new problem-based and problem-solving educational strategies that can lead to creative capabilities in learners and students. This issue enjoys a high significance with talented students at schools and universities as these individuals have high mental capabilities and they can be assisted to broaden their insight through effective teaching methods. By doing this, the power of analyzing the materials, scientific critique, problem-solving and innovation is increased in them.

Teaching and learning methods are generally divided into two groups: active and inactive. It is evident that the educational strategies, which are based on creativity, belong to the first group. Active methods consist of an interactive process through which the learner plays an active role while getting education and the teacher has an advising role.<sup>[13-15]</sup> Active educational methods can provide the required opportunities for developing the skills of creative and critical thinking. The most important examples of these strategies include: (a) strategies of questioning and answering, (b) participative and discussion-based strategies and (c) problem seeking and solving strategies.<sup>[16]</sup>

### Examining the appropriate assessment methods for talented students

After examining the effective teaching methods for the talented learners, the issue of their assessment is dealt with in what follows. The last stage of the teaching-learning cycle is assessment. In other words, the curriculum model finally ends at a point, and it is the rate of learning by learners. The rate of learning is also identified by the already-conducted assessments, which are literally referred to as the learning outcomes, and are dependent on learners' knowledge and information. Currently, these kinds of assessment are done to a large extent in multiple-choice questions format, which usually emphasize the amount of students' memorizations; nonetheless, they are unable to carry out assessments at high levels of learning.

The conducted explorations indicate that most exams are administered by assessing on a pass-fail basis at universities, which is a quantitative criterion. Besides, qualitative assessment is also rare at universities or it does not exist at all. It is suggested in this realm to allocate some percentages of students' final exam scores to the results of the qualitative exams. If these exams are conducted in a precise and correct manner, they can assess students' cognitive and meta-cognitive processes better, and can help to stimulate creativity in students. Merging the traditional and modern assessment techniques into each other also acts as a scientific and appropriate solution for measuring the rate of learners' mental processes.

One of the other common methods for assessing the rate of educational development is the identification of behavioral objectives and assessing based on materialization rate of these objectives. However, one of the main obstacles for

the emergence of creativity in students is the very act of identifying the behavioral objectives. The reason for this is that while identifying the behavioral objectives at time of assessment, only those responses are accepted that have been set beforehand. On this basis, students suffice to memorizing the lesson materials, which is the minimum level of learning for being successful in exams. It must be reminded that behavioral objectives emphasize on the outcomes or results of learning among learners, irrespective of paying any attention to behavioral objectives. In recent years, researchers in evaluative and training psychology have identified another set of objectives for assessment, which are referred to as "communicative objectives." Communicative objectives are process-oriented objectives that emphasize the process of acquiring knowledge and creative answers instead of pre-planned responses, which are bereft of creativity.<sup>[17]</sup>

Compiling the questions in an open-ended format that necessitates reasoning, reflection and deep understanding of lesson materials and analyzing them can act as an effective strategy and hence lead to the emergence of creativity and avoidance of short-sightedness in students. By using open-ended questions, students can opt for combining and analyzing the scientific materials and even generating knowledge.<sup>[5]</sup>

Therefore, all students must be encouraged to explore more ways for developing their own productivity and be creative in presenting their own thinking products. The conducted studies indicate that the talented students are more able than all other students to present more complicated and more efficient products.<sup>[18]</sup> They also opt for commenting on their own and others' products and, in fact, their capabilities create some sort of self-evaluation and other-evaluation in them. They embark on the deep and precise assessment of students' scientific products (ibid).

## RESEARCH METHOD

In order to address the research questions, the descriptive-exploratory method has been used. Its aim was to collect data from the talented students at some governmental universities to examine their satisfaction rate with the educational services provided to them.

The statistical population of this research consisted of all the senior talented students at Isfahan University (IU), Isfahan University of Medical Sciences (IUMS), Isfahan University of Technology (IUT) and Tehran University of Medical Sciences (TUMS) who had been admitted at these universities from 2003 to 2009, which came up to 2739 individuals. (The name list of these students was obtained from the Talented Students Offices in each of these universities after doing the required legal correspondences and coordination.) Among these, 186 individuals belonged to IU, 183 to IUMS, 310 to IUT and 206 to TUMS.

The statistical sample in this research by virtue of each university consists of 33 students from IU, 33 students from



IUMS, 56 students from IUT and 206 students from TUMS. Using the formula, the total number of samples was estimated to be approximately 328.

In this research, the stratified-random sampling method was implemented in proportion to the volume for gathering the samples. In addition, the survey method was used to gather the data. In order to examine the research hypotheses, a questionnaire was used to collect the required data from the samples.

The data-collection instrument in this study is the researcher-made questionnaire on the Likert scale. With regard to this point that no appropriate questionnaire related to the research areas was found, initially, a group interview was conducted with a group of talented students and then the subject literature was precisely reviewed and the appropriate items were extracted. Afterwards, the preliminary version of the questionnaire was prepared by performing the examinations and consulting with 10 experts in the field of talented students. This version was then piloted and the required modifications were done on them so that we can name instrument preparation as one of the fundamental actions in this research. The reliability of the questionnaire has been identified by using the Cronbach alfa method to be 0.94, and its validity has been recognized by relevant experts and professors.

In order to go through the analysis of the questionnaire data, the indices of descriptive and inferential statistics in the SPSS software were used. At the level of descriptive statistics, the indices of frequency, percentage, mean and standard deviation were used to describe the collected facts. Similarly, at the level of inferential statistics, the single-sample t-test, independent t-test and variance analysis were used.

## FINDINGS

The examined sample in this research consists of the students at IU, IUMS, IUT and TUMS. Among them, 44.4% were female and 46.9% were male. Consequently, the majority of students were male. Besides, 25.8% were below 25 years old and 74.2% were above 25 years.

The following Table 1 indicates the frequency distribution, percentage and mean of students' answers to the educational services questions.

The results of Table 1 show that the item 11, "there is the possibility of access to internet, computer and library" has the highest mean (3.51) and item 5, "there is the likelihood for giving constructive comments" has the lowest mean (2.98).

In order to compare the mean of students' ideas with the

**Table 1: The frequency distribution, percentage and mean of students' answers to the educational services questions**

Items	Never		Seldom		Almost		A lot		Very much		Mean
	fd	%	fd	%	fd	%	fd	%	fd	%	
Professors are available for advisory and consultancy	35	12.7	54	19.6	90	32.7	58	21.1	35	12.7	3.01
A rich and valuable content is presented in classrooms	7	5	57	20.07	112	40.07	75	27.03	24	8.07	3.19
Challenging questions are posed by professors in classrooms	24	7.8	61	22.2	105	38.2	50	18.2	35	12.7	3.04
Creative teaching methods are being utilized in classrooms	20	7.3	68	24.7	109	29.6	48	17.5	30	10.09	3.00
There is the possibility for expressing constructive comments	40	14.5	62	22.5	89	32.4	55	20.0	28	10.2	2.898
Numerous references and resources are introduced to gain more information about lessons	15	5.5	40	14.5	94	34.2	80	29.1	44	16.1	3.26
Professors enjoy an acceptable level of knowledge	20	7.3	33	12	76	27.6	106	38.5	40	14.5	3.41
Audio-visual resources are used in teaching	13	4.7	34	12.4	91	33.1	85	30.9	51	18.5	3.46
The presented materials are not repetitious	20	7.3	67	24.4	111	40.4	40	14.5	36	13.1	3.02
Open-ended questions are used in assessing the students	20	3/7	67	24.4	100	36.4	56	20.04	25	9.1	3.00
There is the possibility of access to Internet and library	22	8.0	36	13.1	63	22.9	86	31.3	66	24.0	3.51
Advanced English classes are being held	32	11.6	49	17.8	85	30.09	77	28.0	32	11.6	3.10

theoretical mean, the single-variable t-test has been used as this test requires theoretical mean. Hence, the rate of 3.5 has been used here for the theoretical mean for the talented students' satisfaction rate ought to be higher than the average. The results of this test are presented in the following Table 2.

The comparison of Likert distribution mean ( $x = 3.5$ ) with the mean of students' ideas with regard to the educational services element indicates that the mean of students' ideas ( $x = 3.17$ ) is smaller than the theoretical mean on the Likert scale ( $x = 3.53$ ). This rate is significant at the level of  $P < 0/05$ , with a degree of freedom of 258, by attending to this point that the rate of single-variable t has been estimated to be -8.32. Thus, it can be stated that the quality of educational services is not acceptable at the four universities in students' views.

Results of Table 3 indicate that the TUMS has the highest mean (3.17) and the IU has the lowest mean (3.08) with regard to the educational services offered to them.

The one-way variance analysis test was used in order to compare students' opinions at different universities about the offered educational services to them. The results of this test are presented in the following Table 4.

The results of this Table 4 indicate that there is no significant difference between students' opinions at different universities by virtue of the provided services.

The independent t-test was used in order to compare the male and female students' opinions about the educational services offered to them. The results of this test are presented in the following Table 5.

## DISCUSSION AND CONCLUSION

By attending to this point that the present research intends to assess the rate of talented students' satisfaction with the educational services provided to them at the universities, the research findings and the comparison of the mean of Likert distribution ( $x = 3.5$ ) with the mean of students' opinions on the educational variable indicate that the mean of students' opinions ( $x = 3.17$ ) is smaller than the men of opinion-scale of Likert ( $x = 3.5$ ). Therefore, it can be stated that the quality of educational services is not at an acceptable in students' opinions. This case shows that although universities have paid more attention to this group of students in recent years and the quality of educational services by virtue of content, teaching method, educational environment, professors' characteristics and assessment methods have definitely improved, such a quality improvement about the improvement of educational services, according to Table 1, is higher than all other issues ,and it has been lower than the dimension of teaching.

Regarding the second research question, "Are there any differences among talented students' opinions about the provided educational services at different universities?," the

results of Tables 2 and 3 indicate that although the TUMS had the highest mean (3.17) and the IU had the lowest mean (3.08), there was no significant difference between students' opinions at different universities about the provided educational services and the opinion of different universities with regard to fulfilling students' consent, and they were at the same level.

It must be mentioned that, as it was mentioned before, the Higher Education has paid special attention to talented students in recent years by establishing the Office for the Talented Students, The Talented Foundation and centers for cultivating entrepreneurship. Also, various researches have been conducted about the talented students' satisfaction with the Higher Education system, the majority of which show the dissatisfaction of talented students with the provided educational services.

For instance, Nikneshan *et al.*'s<sup>[3]</sup> research about the rate of efficiency of creative teaching methods for talented students and Nikneshan *et al.*'s<sup>[3]</sup> research about comparing the rate of talented students' satisfaction with lesson plans and the presented content to them approved of the presence of dissatisfaction among the talented students.

Besides, the research findings in this study are congruent with Ahmadi's<sup>[19]</sup> research, which enumerates the

**Table 2: The t-test for comparing the mean of educational services element with the hypothetical mean of 3.5**

Total	Mean	Standard deviation	Mean standard deviation error	T	Df	Sig.
259	3.17	0.63401	0.3940	8.32	258	0.000

**Table 3: The descriptive statistics for the educational services element on the basis of different universities**

University	Total	Mean	Standard deviation
IUMS	30	3.15	0.47
IUT	47	3.23	0.56
TUMS	30	3.08	0.41
	152	3.17	0.72

**Table 4: The one-way variance analysis for comparing the universities on the educational services**

Change source	Total square	Df	Square mean	F	Sig.
Intergroup	0.46	3	0.15	0.48	0.76
Intragroup	103.24	255	0.41		

**Table 5: The independent t-test for comparing the students based on gender about the provided services**

Gender	Total	Mean	Standard deviation	t	df	Sig.
Female	114	3.20	0.63	0.26	242	0.79
Male	122	3.18	0.66			

lesson-plan-related issues and professors' teaching style as the most important problems of students and also with Mokhtaripoor and Jamshidian's<sup>[20]</sup> research titled, "exploring the obstacles on creative education at Isfahan University," which sums up these obstacles as follows: (1) incongruent education with creativity, (2) using verbal methods instead of using active and exploratory methods, (3) emphasizing on memorization, (4) hastening in evaluation, (5) using modular patterns, (6) excessive emphasis on the existing knowledge instead of using it, (7) irrational approval of the score-based system as an incentive for being assured and avoiding danger, (9) emphasizing on competition instead of cooperation and (10) lack of research facilities and provisions.

In addition, the research findings here are congruent with a research titled, "examining the talented students' satisfaction rate with academic education," in which it had been indicated that most talented students are dissatisfied with Internet and library services, quality of education, research and professors' teaching, lab equipments and teaching methods, and believed that these facilities do not respond to students' requirements and expectations.<sup>[21]</sup> Hence, there is a great distance to offering the educational services in an acceptable manner. Nonetheless, it must be mentioned that this research has some limitations too. Among them, we can point out to the limitation of the statistical population at some governmental universities. As a result, generalizing the findings to all other settings is to be done with caution. Moreover, lack of access to some students for responding to the questionnaire and the absence of any similar thesis topic in the country have all brought about problems for comparing and clarifying the results. According to the research findings in this study, it is suggested that universities offer more financial facilities to students for conducting research plans and students be provided with more financial services for participating at conferences both within the country and abroad. Besides, it is suggested that better educational equipments be offered, like rich-content and valuable classes, challenging questions, active and creative teaching classes, numerous references and resources, audio-visual media in teaching, open-ended questions in assessments and possibility of access to Internet, computer and library. It is also proposed that educational workshops on detecting talented students and the manner of dealing with them be convened for professors. Finally, according to the conducted research, a few recommendations are offered for doing future researches: with regard to the obstacles that talented students confront with, it is suggested that research be conducted for examining the ways of removing the obstacles on the way of implementing knowledge management at universities. In the meantime, it is advised that the educational, official-financial

and consultative services that are required for talented students be examined more broadly and precisely in separate researches.

## REFERENCES

1. Westberg KL. Meeting the needs of the gifted in the regular classroom. *Gifted Child Today* 1998;18:27-9.
2. Levy A. School curriculum. In: Mashayekh F, editor. Tehran: Publication of the Ministry of Culture and Islamic Guidance; 1367.
3. Nikneshan SH, Nasr Isfahani A, Mirshah Jafari A. The use of creative teaching methods and creative characteristics of teachers. *Stud Educ Psychol* 2010;136:145-64.
4. Karimi S, Nasr Isfahani A. Role of higher education in lifelong learning. *Educ Strateg J* 2003;4:91-4.
5. Renzulli JS. A rising tide lifts all ships: Developing the gifts and talents of all students. *Phi Delta Kappan* 1998;80:105-11.
6. Maleki H. Organization of curriculum content: With emphasis on curriculum and social studies. Shiraz: Ghu Press; 1988.
7. Van Tassel-Baska J. Planning science programs for high-ability learners. Available from: <http://erices.Org/digests/e546.htm>. [Last cited in 1998b].
8. Tomlinson CA. Good teaching for one and all: Does gifted education have an instructional identity? *J Educ Gift* 1996;20:155-74.
9. Nelson J, Middleton CR. Activity based student's induction, motivation, performance and professional socialization: Acas study International conference on engineering education. Oslo 2001;6-10.
10. Hoover SM, Saylor M, Feldhusen JF. Cluster grouping and elementary students at the elementary level. *Roeper Rev* 1993;16:13-5.
11. Archambault F, Westberg X, Westerg KL, Brown S, Hallmark BW, Zang W, et al. Regular classroom practices with gifted students: Findings from the classroom practices survey. *J Educ Gift* 1993;16:103-19.
12. Johnsen S, Ryser G. Identification of young children from lower income families. *Gift Talent Int* 1994;9:62-8.
13. Torrance EP. Torrance tests of creative thinking- revised. Bensenville, IL: Scholastic Testing Service; 1974.
14. Gorey H. Creativity in the classroom. *Gift Child Today Mag* 1996;19:36-7.
15. Kerka L. Helping gifted students with stress management. *Eric Ec Digest* Available from: [www.kidsource.com](http://www.kidsource.com). [Last cited in 1999].
16. Hosseini A. Effective teaching methods for the talented. Proceedings of the second national conference for talented students, Isfahan, Iran: Isfahan University; 2003.
17. Maker CJ. Teaching models in education of the gifted. Austin, TX: Proed; 1982.
18. Parke B. Challenging gifted students in the regular classroom. Available from: <http://www.erices.org/digests/e513.htm>. [Last cited in 1992].
19. Ahmadi A. The study of satisfaction of talented students at Isfahan University. Proceedings of the national conference for talented students, Isfahan, Iran: Isfahan University; 2003.
20. Mokhtari Pour M, Jamshidian R. Barriers to creativity in education and research of talented students of Isfahan University. Proceedings of the National Conference for Talented Students, Isfahan, Iran: Isfahan University; 2003.
21. Nasrabadi B, Noroozi R. Fostering creativity in gifted students of Isfahan University. Proceedings of the National Conference for Talented Students, Isfahan, Iran: Isfahan University; 2003.

**Source of Support:** This study was supported by the vice-chancellery for research of Isfahan University of Medical Sciences, **Conflict of Interest:** None declared