

A mission-based gifted and talented program

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ABSTRACT

Background: Only in recent years has the concept of "Multiple intelligences" been acknowledged.

Purpose: To develop a mission-based program to train gifted medical students on skills and sciences needed for sustainable development

Methods: A two-armed program was developed for training medical students. The first arm of the program train students for management purposes. The second branch of the program educates medical students to enable them to contribute to scholar development in areas of health and medicine.

Results: The Managerial pathway has been implemented since July 2003. More than 400 students from Shaheed Beheshti and elsewhere registered in the program as main members or guest members of the program. The level up exam was given on February 2004 with 13 students qualifying for C level.

Conclusion: It may be too early to draw any conclusion in terms of fulfilment of the outcomes of the program but the dedication of the members to the program has been beyond imagination.

Keywords: MISSION-BASED, PROGRAM, GIFTED, TALENTED STUDENTS, GIFTEDNESS IDENTIFICATION.

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Introduction

In the last three decades, concepts of giftedness and talent have been significantly changed (1). The concept of intelligence has recently been received broader and more specified meanings with recognition of specific and non-traditional talent areas and the popularising of "Multiple intelligences" (2).

Giftedness is the distinguished ability in one or more fields and talent is the higher than normal performance in one or more fields. In Renzulli's three ring model of giftedness, general intellectual ability, creativity and task commitment are the components of giftedness and talent (3). Sydney Marland has described several aspects of intelligence: general intellectual ability, specific academic ability, creative thinking, leadership ability and artistic potential (4). In the latest theories of intelligence, more focus has been laid on interpersonal and intrapersonal relationship and leadership ability (5, 6, 7).

On the other hand, our country ranks first in brain drain among 61 developing and less developed

countries according to International Monetary Found (IMF) report(8). Almost 150000-180000 Iranians try to immigrate by various means annually. Of 125 Iranians high school students who have won awards at international science Olympiads over a period of three years, ending at 2001, 90 are now at US universities. (9)

According to Maslow's hierarchy of needs, the order of human needs is as follows: physiological, safety, love, affection and sense of belonging, self-esteem and at the top of the pyramid is the need for self-actualization. The need for self actualization is more paramount in the gifted.

Considering these aspects of the problem, the mission based Gifted and Talented program in Shaheed Beheshti University of medical sciences has been installed with three main goals:

- 1- Arriving at critical mass of intellectual capital
- 2- Directing this intellectual capital toward management of health system

- 3- Safeguarding this intellectual capital through communicating and supporting networks

Ten axes of the program

This mission-based gifted and talented program has been composed of ten axes:

- 1- Terminology and Definitions
- 2- Philosophy and Rationale
- 3- Identification procedure
- 4- School-wide enriched program
- 5- Differentiated curriculum
- 6- Specialized students assessment
- 7- Training teachers of gifted and talented students
- 8- Support and counselling system
- 9- Future career
- 10- Reversal of Brain Drain phenomenon

Theoretical studies about the program and the gifted and talented education is started from August 2002 this study continued for almost 3 months. In this period many studies and programs regarding gifted and talented students were reviewed from all over the world. New concepts, identification tools, curricular and extra curricular activities, support networks, counselling service were studied. The problems that we have in our country about the intellectuals and their immigration were discussed and at the end of this primary conceptual phase of study, several components of the program were designed

Identification procedure

There was a traditional identification procedure of gifted and talented students in our university that was based on ministry of health's regulations and was composed of the student's university entrance exam scores and their university GPA (i.e. only based on academic achievement). We designed a multi-approach procedure that was based on the program mission and its characteristics were defined as: Defensibility, Advocacy, Fairness, Comprehensiveness, Feasibility and Reliability this Identification procedure was composed of standardized IQ tests, peer nomination, teacher nomination, self nomination and academic

achievement. Through these routes 30 medical students of second and third semester were identified and added to 57 students that were identified from traditional procedure in the faculty of medicine and 29 students from Dentistry and Pharmacology faculties. These identification procedures were completed on May and June 2003. Many gifted and talented students that were eager to pass this differentiated curriculum from universities all over the country were added to this mass of intellectuals and in this way the main and guest members of the program reached to 350 from 8 universities.

Gifted and talented differentiated curriculum

Differentiated curriculum of these students is designed in two pathways manager-leader pathway and scholar–scientist pathway. The first pathway is in operation from July 2003. This pathway has seven fields:

- 1- Health Policy and Planning
- 2- Health Economics & Finance
- 3- Medical Education
- 4- Health Research
- 5- Clinical Excellence
- 6- Management
- 7- Sustainable Development

Medical Informatics field was added to these at the first revision of the program at May 2004. One hundred sixty electronic documents have been provided through pain staking critical appraisal and objective matching of more than 10000 documents (books, articles, position papers, etc).

In this pathway all the documents are divided to core and non-core and allocated to seven levels:

- 1- warm up level (entrance)
- 2- C Level
- 3- B Level
- 4- A Level
- 5- Managerial clerkship
- 6- Managerial internship
- 7- Continuous managerial education and professional development

Gifted and talented students can achieve credits from five different ways:

- 1- Knowledge base references (mentioned above)
- 2- Managerial scholarship
- 3- Academic achievement
- 4- Scientific achievement
- 5- Leadership credits

With gathering these credits, students can pass level-up exams based on the pace they prefer. Students' curricular activities in the program are consisted of module workshops on core knowledge base references in each level, theme based groups etc But the main route in this differentiated curriculum is individualized computer assisted learning which is led by a website.

The second pathway of the program (Scholar-scientist pathway) will be launched in the near future.

Student Assessment

To assess students in each level a combined evaluation tool is designed which is consisted of written exam, portfolio assessment and an oral interview. The assessment procedure is given twice every year and students can take the exam whenever it is convenient. Every student which is up graded to c-level is recognized as main member of the program and if he or she could qualify for the next level in two level-up exams he or she will loose its status as a main member and will be considered a guest member. Only main members are entitled to the support system privileges.

The first level-up exam of the program was held in February 2004 and 13 students successfully passed.

Support and Counseling system

To provide a counseling network for these gifted and talented students we negotiated with almost 70 experts in various fields related to the program. These experts will be connected to students via interest groups of the website. Moreover, a support system has been designed to provide the students with certain These facilities are allocated as a pyramid according to different levels of the program and some intervention are designed to expand this support system in the future.

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