GIFTED STUDENTS' VIEWS ABOUT FIRST STAGE OF THE EDUCATION PROGRAM FOR THE GIFTED STUDENTS' BRIDGE WITH UNIVERSITY (EPGBU)

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ABSTRACT

All over the world, studies related to design of appropriate educational programs for gifted students are continuing. It is also important that these programs should be adapted to developing educational technologies. In Turkey, the structure of the Education Program for the Gifted Students' Bridge with University (EPGBU) which has been prepared for the education of gifted students in the academic field and determined as the primary educational approach to e-mentoring, is presented EPGBU first stage of teaching process in this article. EPGBU teaching process is consisting of three periods. In this study, students' opinions about the first period of the program have been examined. Gifted students expressed positive opinions about EPGBU. They offered the suggestions for improvement of the program. It can be said that the social validity of EPGBU is high thanks to findings.

Keywords: Gifted students, e-mentoring, The Education Program for the Gifted Students' Bridge with University (EPGBU)

INTRODUCTION

Some differences in the cognitive domain of gifted students from their peers; learning speed, memory ability (Akarsu, 2004; Ataman, 2004; Feldhusen, 1998; Finley, 2008; Sak, 2010) and self-regulation and planning skills (Finley, 2008; Terman and Oden, 1976; VanTassel-Baska, 1998a). Also, their intrinsic motivation is greater (Gottfried & Gottfried, 1996; Hong, Greene & Hartzell, 2011; Jeltova & Grigorenko, 2005; Lens & Rand, 2000; Phillips & Lindsay, 2006) than their peers. Many educational strategies have been proposed for the education of the gifted students in the world (Renzulli, 1977; Betts, 1986; Rogers, 2002; Kulik, 1992; Maker; 1982; Siegel, 2005; Sak, 2009; Tomlinson et al., 2002; Reis & Renzulli, 1978; Van Tassel-Baska & Wood; 2009; Kaplan, 1986; Feldhusen & Kollof, 1986).

In Turkey, gifted education has been one of the academically popular topics (Gokdere, Kucuk & Cepni, 2004; MoE, 2013) especially establishing of Science and Art Centers (SACs) in Turkey (MoE, 2007; Kunt & Tortop; 2013). Besides, Education Program for the Gifted Students -a new program- which was founded in Anadolu University and coordinated by Prof.Dr. Ugur SAK (Sak, 2011). The Education Program for the Gifted Students' Bridge with University (EPGBU) which was established by Hasan Said Tortop at Bulent Ecevit University at Center for Special Education Research & Application (Tortop, 2013c), and carried out to bring an innovation in gifted education in Turkey.

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EPGBU' philosophy that the most effective way for academically gifted students to improve their talent at science is to connect with scientists (Sak, 2010; Nash, 2001).

Mentoring program which is applying on online is called e-mentoring or telementoring (Kahraman, 2010; Ozdemir, 2012; Siegel, 2005). This approach removing the limitation of time and space, facilitating access to global resources and monitoring of student progress (Akin & Hilbun, 2007; Siegel, 2005; Nash, 2001; O'Neil, Weiler, Sha, 2005), is one of the main approaches of EPGBU. In literature it can be seen many e-mentoring programs at educational fields (Bennett et al., 1998; Bonnett, Wildemuth & Sonnenwald, 2006; Stake & Mares, 2001; Bonnett, 2002; O'Neill, 1998; O'Neill et al., 2005; MentorNet, 2002).

Students have been provided many educational outcomes with these e-mentoring programs. There are many advantages of e-mentoring; students get the opportunity to communicate several specialists, there is no geographical limitation at mentor selection, appropriate consultation between students and mentors is easily done weekly, it allows the continuity of communication between mentors and students and to obtain archive, mentor-student communication can take place at any time via e-mail, they don't need an appointment, students get the opportunity to make a long-term project (Siegel, 2003; Bonnett, Wildermuth & Sonnenwald, 2006).

EPGBU consists of the five components; EPGBU Teaching Process, Students (Academically Gifted) Selection, Mentor Selecting for EPGBU and Orientation Training, EPGBU Curriculum Approach, and Evaluation (Tortop, 2013c). In this research, it would be briefly explained Teaching Process which is one of the components of EPGBU.

Teaching Process of EPGBU and First Stage:
EPGBU Scientific Field & Mentor Selecting Process
Teaching process of EPGBU is consists of three phases. Scientific Fields & Mentor Determining Period, In-Depth Study at the Scientific Field and Designing Scientific Research Period, Independent Scientific Research and Reporting Period. First stage involves the process of determining both mentor and scientific field by gifted students. In this period, scientists do science activities related their scientific field. This stage of aim is that engaging of gifted students at scientific field. Until the end of this period gifted student' asking questions to the scientists via Moddle program on B.E.U. Center for Distance Education Research module. So, gifted students connect with scientist, and gifted students' bridge with university is established. The other stages are EPGBU; In-Depth Study at the Scientific Field and Designing Scientific Research Period and EPGBU Independent Research and Reporting Period (Tortop, 2013c). So this research related first stage, second and third stages have been not mentioned in this article.

The purpose of the study is to put forward the views about EPGBU of gifted students ongoing EPGBU. In this study, the research problem is that what are the views of gifted students about first stage of EPGBU? and research sub-problems are as follows;

> ➤ What are gifted students views about the contribution of EPGBU?
> ➤ What are gifted students views about online communication with university teachers?
> ➤ What are gifted students views on continuity of EPGBU?

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> ➢ **What is the most attractive theme of first stage of EPGBU according to gifted students?**
> ➢ **What are gifted students' recommendations for first stage of EPGBU?**

METHOD

The research was carried out case study model which was one of the qualitative research model (Buyukozturk et al., 2011; Miles & Huberman 1994).

Participants

In 2012-2013 academic years, 33 gifted students which was at 7th grade or upper classes enrolled Zonguldak SACs at education stages of the Special Skills Development and the Project were given information about EPGBU. But, 20 gifted students included this program. So, the participants of this research consist of 20 gifted students which participated all of activities and used Moddle program on B.E.U. Center for Distance Education Research module.

Data Tools

In this research, interview form, online diaries and participants' messages were used as data collection tools. In the interview form, these questions were asked; What are your views on EPGBU?, Did EPGBU contribute to you anything? If yes, what is it? What are your views about online communication with university teachers? Do you want the continuity of EPGBU? According to you, what is the most attractive theme of EPGBU? Do you want to do scientific researches in this field? What are your recommendations for EPGBU?

Data Analysis

In the research, content analysis consisting of coding to analyze qualitative data, identification of themes, the classification of the data according to the code and themes, was used (Yıldırım & Simsek, 2006). In the analysis of the data obtained from the interview, inductive descriptive analysis which is one of the qualitative data analysis methods was used (Miles & Huberman 1994). In data analysis, each interview was coded by two researchers. For a rigorous description of views, while coding, participants' concepts were paid attention; after codes were categorized according to their similarities and differences, categories were compared to each other; by putting forward the similarities and differences of views, themes were revealed. For this purpose, to verify whether the data is represented in interviews form or not, coding conducted by two researchers, intercoder reliability was calculated 90% with formulation of Miles & Huberman (1994). As a small part of the students filled in EPGBU diaries regularly, the diaries weren't taken into account for data analysis.

Procedure

EPGBU was applied in collaboration with Bulent Ecevit University Center for Special Education Research & Application and Zonguldak Science and Art Centers in the academic year 2012-2013. In this program, the academic staff of Bulent Ecevit University, within the framework of themes in their fields, trained 20 gifted students at grade 7th and above enrolled in Zonguldak Science and Art Center between 17:00-19:00 on Wednesdays. During these activities, students can ask all the questions to lecturers. These activities, which lasted 12 weeks and included 12 themes, were supported by field trips.

These themes are; Diversity of Living Things, The World of the Atomic Nucleus, Plastic Materials Leading to the Development of High Technology, Chemistry in Forensic Science, What is Radiation? We Calculate the amount of Radiation, Optical Systems, We Calculate the Electron Charge, What is the God Particle (Higgs Boson)?, The Photoelectric Effect and Understanding the Nature of Light, The Science of Future: Genetic, We Recognize Turkish and Muslim Scientists, and We Learn Their Contributions to Science, What is Geoscience? Is There Oil in Black Sea? EPGBU students participated in these activities within the framework set out in these themes. Then, by logging in distance learning portal at Bulent Ecevit University Center for Distance Education Research & Application with passwords assigned to them, they asked questions to mentors.

Academic staff, providing students to have interest in these fields with the help of activities, applied e-mentoring (via Moddle program) by using B.E.U. Center for Distance Education Research & Application module. In this way, the university bridge with gifted students was established.

FINDINGS

The data obtained from the interview form that was formed to determine the participants' views on EPGBU, was subjected to content analysis. Content analysis was directly quoted from views' participants in the tables below.

Findings related to the research problem

Table: 1
The content analysis of gifted students'
views on first stage of EPGBU

Theme1: Opinions about EPGBU		f
Defining of EPGBU		
	A good program/project	6
	Entertaining	3
	Informative	4
	Useful	4
	Opportunity builder	2
	Well-considered	2
	Revealing areas of interest	3
	Not intended for young age	1
	Preparatory to the Future	2
	Developable	1
	Successful	1
	Informative about jobs/career	1
Feeling about participating in EPGBU		
	Feeling of superiority at school	1
	Be excited	1
	Be happy	1
	Proud	1

Some quotations of students' opinions about EPGBU as follows;

"Through this program, we acquire the information about jobs which become the future. Through this program, we learn the subjects which are useful to humankind, not only to ourselves (Stu.20) "I think it can be improved. Some of the issues currently in the same way we know exactly, but some are really great. I think the future activities will be better (Stu.14), "It is really a well thought and very nice program. Through this program, I discover my interests, (Stu.5) "It is a great project. Because at this age, it is a big opportunity to be with professors and associate professors and to ask them questions (Stu.7) "It is a useful project. Because, professors teach us. It is proud to meet them and take courses from them (Stu.6)", "It is a very entertaining and educational program. I am very happy to have participated in (Stu.5)

Findings related to the first sub-problem

Table: 2
The content analysis of gifted students' views on first stages of EPGBU's status of contribution and aspect of contribution to students

Theme 2: Contribution and Contribution Aspect of First Stage of EPGBU to Students		f
EPGBU's Status Of contribution to Students		
	Have contributed	18
	Have partially contributed	2
	No contribution	0
EPGBU's aspect of contribution to students		
	Contribution university courses for the future	2
	Contribution to school courses	3
	Providing contribution on future research	3
	Specialization in the field	4
	A better understanding of the science	2
	Recognition of the scientific fields	2

"With the help of this program, I discovered that there are different professions and research fields except professions such as medicine, teaching. I would really like to study these scientific fields in the future (Stu.14)". "Through EPGBU, some things about the profession that we will choose in the future were shaped. What I learned here will be very useful to specialize in the career plan that I will choose (Stu.7)". "Here we had the opportunities which we couldn't have in public schools. Very nice subjects were taught to us. In my future studies, it will affect me in a positive way (Stu.15)". "Now I'm preparing for the university entering exam. Maybe it does not have contribution to the university entering exam, but I'm happy to be here. Because, I learned a lot of things. Even the smallest thing I've learned about the laws of physics is especially important to me, (Stu.17)".

Findings Related to The Second Sub-Problem

Table: 3
The content analysis of gifted students' views on e-mentoring with academic staff

Theme 3: E-mentoring with Academic Staff	f
Integration with EPGBU	1
Privilege	2
The opportunity to answer my questions	7
To ensure continuity of education	3
Experience sharing	3
Good practice	5
Useful and easy	3

"I got the opportunity to ask any question in my mind (Stu.18)". "Of course, for all of us it is very useful. Getting information about the scientific fields and continuity of the process especially after the end of activities is very efficient. Here, it is even nicer to be able to communicate with academic staff (Stu.17)". "I cannot access the internet regularly, but I'm trying to access the internet at odd times. Lecturers' experiences help me a lot (Stu.15)". "It is very useful as it always offers the chance of getting information instead of benefiting in some days from this application (Stu.9)". "Well, we can ask questions (Stu.1)".

Findings Related to The Third Sub-Problem

Table: 4
The content analysis of gifted students' views on request of the continuity of EPGBU

Theme 4: Request of EPGBU's Continuity	f
EPGBU should continue	20
EPGBU shouldn't continue	0

"I would like to have information on more topics. In this way, I can talk easily in many specialties (Stu.4)". "Yes. Because we learned many things that we do not know, do not hear before (Stu.6)". "Yes, I would like because others should benefit from this program (Stu.7)". "Yes, I would like, because we do experiments and we have fun. I'm getting more interested in these subjects. I can determine my future profession (Stu.8)". "Yes, I'm learning more about the university environment. Information gained here is not to solve the test, but just to learn. I like it (Stu.10)". "Yes, absolutely. Because some courses we learn here are really interesting and really nice. I think EPGBU will develop further in the future, (Stu.14)". "Yes, this program has many contributions to us (Stu.20).

Table: 5
The content analysis of gifted students' views
on the most attractive theme of first stage of EPGBU

Theme 5: The most attractive theme of First Stage of EPGBU	f
Nuclear physics	2
Diversity of living things	7
Electricity	3
Chemistry in Forensic Science	4
Radioactivity	4
Optical instruments and laser	1
Polymers and plastic materials	1

"I am interested in nuclear physics, the most so far, but that may change (Stu.20)". "I'm interested in electricity. As long as the studies increase in this field, my interest increases, too (Stu.18). "The diversity of living things and forensic science drew my attention the most. Both subjects are quite interesting and very common in everyday life issues. I would like to do the project on these two issues. Also, electron charge was great (Stu.14)".

"I am interested in diversity of living things, to tell the truth, living things. So I'd like to do a scientific experiment on biology in the future (Stu.12)". "Optical systems, because it looks like a fun topic. I would like to do research in these scientific fields (Stu.5)".

There is a relationship between students' the number of the questions on EPGBU module and the most attractive themes of students.

Diversity of living things (18 questions), radioactivity (6 questions), forensic science (3 questions). On other themes, one or two questions were asked.

Findings Related to The Sixth Sub-Problem

Table: 6
The content analysis of gifted students' views for recommendations for EPGBU

Theme 6: Recommendations for First Stage of EPGBU	f
It should be more funny	1
There should be more scientific fields, and it should be more longer period	3
It should be more easier themes	1
There should be more experiments	5
There should be more advanced topics	5
There shouldn't be young ages students	3
There should be social activities	1

"There should be more experiments and less talk or presentation. Lecturers may be more active in explaining topics (Stu.14)". "Young age's students shouldn't come. Teachers shouldn't go down their understanding level. So, we can have a small and qualified group. Also, the quality of courses increases (Stu.10)". "I think we should do more experiments and learn more advanced topics, (Stu.8)". "There should be more experiments and it should be more detailed (Stu.6)".

DISCUSSION AND CONCLUSION

In Turkey, there are limited studies on e-mentoring. One of them was carried out by Kahraman (2010) with Anadolu University, Department of Computer Technology Education department pre-service teachers in 2010-2011 academic years. In this study conducted to support the professional development, findings were found that pre-service teachers achieved acquisition on sharing knowledge and experience, orientation and goal setting, recognition and compliance with the university, easy access to counselling, self-development, communication skills development, social and emotional support , keeping information up to date and reinforcement.

Another e-mentoring study was carried out by Ozdemir (2012). In the academic year 2011–2012, provincial education supervisors and their assistants working at national education directorate were determined as mentees and academicians and experienced education supervisors as e-mentors. Ozdemir (2012) determined that mentees' attitudes towards the computer and the internet, e-learning and achievements increased. In addition, Cetin (2013) conducted a mentoring action research study with eight English teachers. He stated that English teachers in disadvantaged had contributions to their professional development. In particular in this study, the number of e-mails of gifted students' questions to the academic staff through the distance learning module was found to be low.

Scandura (1998) explained what to pay attention in e-mentoring applications. Related to this situation, the booklet prepared in internet-based project implementation for pre-service teachers, provided an increase in the number of posts (Calik et al., 2013). During this EPGBU period, it is important that communication between students and e-mentors should increase, the fields of interests should determine, gifted students should be encouraged to do research by enrichment activities.

In scientific research projects, qualifications of the teachers who are mentors are very important in terms of acquisitions that students will gain. In research findings, themes of some mentors were liked more by gifted students and attracted interest. This is an important sign that the qualifications of academic staff, who will be mentors (Gray, 1982; Kahraman, 2010; Nash, 2001; Siegel, 2005), are very important.

Mentors' qualifications which could be more effective in gifted students' education, can be a subject of another study. In project competitions, distance education were done to increase mentoring competence such as Course for the Project Competitions (Science Fair) Mentorship was given as distance education at Bulent Ecevit University Center for Distance Education Research & Application (see. http://uzem.beun.edu.tr/). It is quite important that mentors drawing students' attention to do scientific research or mentors trained on effective mentoring should be selected for EPGBU.

That gifted students' requests of the continuity of EPGBU is fairly important in terms of the social validity of the program. The continuity of gifted education programs is one of the most important problems (Sak, 2012). At this point, students' suggestions for the program should be taken into account. That students' suggestions about enriching in terms of the experiment and activities, being more scientific fields and longer period may be an indication that gifted students' interests on other scientific fields may occur. Gifted students stated that they had an opportunity and a privilege for themselves with e-mentoring of academic staff. This may be an indication that scientists are important people according to perspectives of gifted students. That gifted students think EPGBU has a contribution to their career choice and provides ideas for future scientific research, it shows that the aims of the programs were understood by gifted students correctly.

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