Career Decisions of Gifted Students in Turkey

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Abstract

The aim of the present study was to examine career decision of gifted students. Participants were consisted of 63 gifted middle school students, fifth through eighth grades, attending a gifted education class within a school. Their ages ranged from 11 to 15. The data was obtained through a survey including questions about demographic information and two open-ended questions about career decisions. The participants’ responses were analyzed with content analysis. The results indicated that the most preferred occupational fields by gifted students were engineering, medicine, design, science, defense, space science, law, sports, and business, respectively. Most of the gifted students specified a clear and specific occupation. There were also differences between boys’ and girls’ occupational preferences. Suggestions for teachers, parents, and further research were also provided based on the results.

Keywords: Gifted students, career decision, gender.

Introduction

Gifted students are those who have high capacity and abilities in various areas, including general and specific academic domains, creativity, leadership, and arts. Gifted students also express exceptional competence and skill acquisition in performance areas such as art, language, math, and sports. These students are usually considered as top achievers and performers (5-10%) among their peers (Gagne, 2003; Sternberg, Jarvin, & Grigerenko, 2011). Gifted students may also have unique characteristics and needs different from their non-gifted peers in social, cognitive, academic, and emotional areas. Gifted students’ special characteristics and needs may also bring with unique needs in their career development.

It is widely acknowledged that career development is a lifelong process (Baer, Flexer, Luft, & Simmons, 2008; Bezanson, 2003; Delisle & Squires, 1989; Patton & McMahon, 2006; Silverman, 1989; Swanson & Fouad, 2010). Career development includes exploring various career opportunities, narrowing options based on interests, abilities, and values, making career decisions, and developing a plan to attain predefined goals (Milgram, 1991). Thus, career development may require guidance and counseling about the self, career options, world of work, and commitment. Waters (2010) mentioned complexity of career decision-making process, which needs to be evaluated within the context such as time, place, and culture. Thus, even though gifted students have exceptional abilities and skills, helping gifted students to acquire career decision-making skills is important (Leung, 1998).

Career counseling for gifted students includes some unique challenges (Kerr & Kurpius, 2004; Peterson, 2007). One of the challenges is that gifted students may demonstrate career development differently from their peers (Fox, Tobin, & Brody, 1981). Although there is an
assumption that gifted individuals are able to have strong career development and make career decisions by themselves thanks to their higher level of intelligence (Greene, 2006; Peterson, 2009), this kind of assumptions are usually false (Chen & Wong, 2013). Research has indicated that many gifted students who were undecided about their career choice (about 48%) and academic path that they want to pursue (about 36.3%) (Leung, 1998). Some researchers (Achter, Benbow, & Lubinski, 1996; Heacox & Cash, 2014; Kerr & Colangelo, 1988; McKay, 2009) stated that gifted students have a wide range of interests; therefore, they have difficulties in selecting an occupation. Furthermore, gifted individuals begin to deal with career choice much earlier (eight to ten years old) than their peers because of their outstanding abilities (Kerr, 1985; Silverman, 1993). Gifted students are multi-talented and set realistic career goals (Crocker, 2004; Diezmann & Watters, 2006; Fox, Tobin, & Brody, 1981). Fox (1978) researched 7th-9th grade gifted students’ career development and found that these students preferred occupations relevant to specific areas such as writing, mathematics, science, public speaking, and medical science. According to Kerr and Fisher (1997), gifted students have usually inclination not to select career paths in their area of expertise such as English or social studies. Instead, research has found that the majority of gifted students select traditional career paths such as law, medicine, business, engineering, and communications (Kerr & Colangelo, 1988). Similarly, Colangelo and Kerr (1990) categorized gifted students’ most preferred occupational preferences into five areas: engineering, medicine, physical sciences, social sciences, and business. Previous research has demonstrated that there are several factors that influence career decisions of gifted adolescents. Among these factors are gender differences (Ferriman, Lubinski, & Benbow, 2009; Fox, Tobin, & Brody, 1981; Hollinger, 1991; Kerr & Sodano, 2003) and multitipotentiality (Achter, Lubinski, & Benbow, 1997, Silverman, 1993).

The awareness of both gifted boys and girls who are at the age between 11 and 14 years old about their career decision process and their involvement in career decision making process are higher than their 15 year-old boy and girl non-gifted peers. Reis, Callahan, and Goldsmith (1996) found that both gifted boys and girls demonstrated similar interest in occupations such as doctor, scientist, lawyer, and business person. However, gifted girls are much more knowledgeable than gifted boys about career choices (Kelly & Cobb, 1991). Furthermore, both gifted girls and boys have high educational and occupational aspirations.

Gifted students’ career decisions may change during lifetime by social and cultural reasons (Kerr, 1993). Kerr and Maresh (1994) indicated that gifted girls’ career aspirations change at their adolescence. Gifted adolescents appear to have more extensive career information than their non-gifted peers (Greene, 2003). Cassie and Chen (2012) pointed out that girls seem to make changes in their career plans or understanding of their careers during secondary school years. Peers, family, teachers, and social environment are external factors that influence girls’ career decisions (Nelson & Smith, 2001). The girls who are successful at American College Testing (ACT) usually prefer pharmacy, health areas (17.9%), social sciences (14%), and business (13.0%). Unlike boys, many girls do not prefer engineering. Engineering as a career is preferred by 30.5% of boys and 7.9% of girls (Campbell & Clewell, 1999). Girls do not tend to choose occupations related to computer, physics, and engineering (Campbell & Clewell, 1999; Kerr & Colangelo, 1988). Similarly, Sadker and Sadker (1994) indicated that girls have generally inclination to prefer female dominated careers such as elementary school teachers (86%) and kindergarten and preschool teachers (95%) as well as registered nurse (Mendez & Crawford, 2002).

Gifted girls, on the other hand, may experience gender related barriers similar to that of general female group experienced gender socialization (Chen, 2008). Because of the barriers, the gap widens between the academic success and abilities of gifted girls and their career
choices and achievements (Kerr, 1995). Girls may give importance to cultural and social impacts of career choices rather than their personal desire and interest (Kerr & Maresh, 1994). Hence, it may cause conflict in career decision (Greene, 2003). That means girls may have lower expectations from themselves and their career achievements, and they may not value their interest and strength areas. However, in Turkey, girls’ career development has changed recently with the advancement in social justice, educational equity and change in gender roles (Soysal, 2010). As societal norms transforms, stereotypes about gender also change. For instance, in Turkey, although nurses and primary school teachers were mostly females in the past, today, there seems to be more males who consider those careers (Kentli, 2014).

Gifted students have multiple career interest and should make career choices according to their area of strength (Kerr & Sodano, 2003). However, gifted students do not have limitless abilities; they are rather good at more than one interest areas (Chen, 2013). Therefore, career counseling may assist gifted students in examining and coping with plenty of career choices available to them (Robinson, Shore, & Enersen, 2007). It is a widespread acceptance that multipotentiality may be disadvantage in career decision making process. The multiple opportunities gifted and talented students usually have incline to increase the complexity of decision making and goal setting. It may accordingly delay election of a career and cause indecisiveness (Kerr, 1990). Multipotentiality is a concept that has been stressed in the literature on the educational-vocational counseling of gifted students (Emmett & Minor, 1993; Kerr & Claiborn, 1991; Kerr & Colangelo, 1988; Milgram, 1991; Silverman, 1993). Fredrickson (1979) defined a multipotential person is as “any individual who, when provided with appropriate environments, can select and develop any number of competencies to a high level” (p. 268). The students with multipotentiality, as a result of their multi interests and abilities, are attracted equally by an overwhelming array of career options (Fredrickson, 1979; Kerr & Ghrist-Priebe, 1988).

Gifted students are often pulled in opposing directions by parents, teachers, and counselors who are aware of these students’ obvious capabilities and interests. They may ignore the student’s preference about their future (Achter, Lubinski, & Benbow, 1997). Similarly, environment set high expectations to gifted students about their careers. Hence, gifted students should narrow their career choice and plan their future according to these expectations (Stewart, 1999). A study that assessed abilities, interests, and values of over a thousand gifted adolescents showed that the percentage of multipotential participants would have been fewer than 5% (Achter, Benbow, & Lubinski, 1997). That is to say, gifted students are not equally competent at everything. The results of this study urge taking into account weaknesses of the gifted children even if they may have several interest areas. In order to identify and differentiate their areas of strength exactly (Achter, Benbow, & Lubinski, 1997), gifted students should be counseled to be aware of their academic strengths. Then, relevant career goals on these areas of strength should be built (Fredrickson, 1986). Gifted students should be provided opportunities of real life experiences in various professions so that they will be able to determine which of their interests should be pursued as a career (Silverman, 1993). Moreover, they need help to develop their decision making skills that are substantial reasons for the difficulty in occupational planning (Greene, 2002).

Social Learning Theory (Bandura, 1977) provides some useful insights and explanations about career aspirations of the gifted students. It suggests that every child is born with special abilities and potential that has impact on their personal preferences. Also, individuals are affected by social, cultural, political, and economic forces surround them. These environmental influences also play role on career decision-making (Stewart, 1999). Jung (2013) focused the importance of culture in terms of gifted adolescent cognitive development and career decision making processes and provided a comprehensive literature. Expectations
from the future and family influences have positive impact on gifted children’s cultural orientations and their career goals (Jung, 2013). Mendez and Crawford (2002) noted that gifted girls demonstrate more gender role flexibility (e.g. makeup artist, doctor, social worker, college professor, and veterinarian), while boys prefer male dominated jobs (forest ranger, professional athlete, marine scientist, mechanical engineer). That is, gifted girls have wider range of career choices than gifted boys. However, even if they have high career expectation and male dominated career aspiration, girls, in general, are more attracted to female-dominated careers than boys because of environmental factors (e.g. parental and social influences). Similarly, Green (2003) noted the conflict between career goals and expectations in society for women. Hence, peers, parents, and teachers were frequently advised to provide more support and encouragement in the career development of gifted girls (Nelson & Smith, 2001).

The literature suggests that proper support for the gifted students’ career decision making may have some improvements in terms of the development of career interests (Casey & Shore, 2000). For example, Kerr and Kurpius (1999) examined the effectiveness of a guidance program for talented and at risk girls and found that it increased the students’ career exploration, self-esteem, and self-efficacy. In another study conducted by Kerr and Erb (1991) revealed that a career counseling intervention program for talented students increased the students’ confidence in their vocational identities. The period of adolescence is also critical for career development because vocational issues are established during these years (Peterson & Gonzalez, 2000). Therefore, gifted students’ developmental stories, special needs, and personal and academic goals should be observed and evaluated so that appropriate educational and counseling opportunities can be provided. Unfortunately, there is a shortage in research of occupational preferences/career decisions of gifted students in Turkey. It can be said that, it was a neglected topic and there is not enough study on this topic especially in Turkey. This study was inclined to be a preliminary study providing descriptive results on occupational preferences of gifted students in Turkey. Thus, it provides insight into career decisions of gifted students. The aim of the current research was to examine career decisions of gifted students within the context of culture, gender, and giftedness.

Method

In this study, a qualitative research design was operationalized. Descriptive information about the participants was collected through a survey, which was developed by the researchers. In addition, participants’ occupational preferences along with reasons behind the preferences were obtained using a qualitative method. A qualitative method was preferred because it provides researchers with deeper understanding about the participants’ reasons about their job preferences. The participants were asked two open ended questions to write down their occupational preferences and the reasons behind their preferences.

Participants

The sample consisted of 63 (37 boys and 26 girls) gifted students attending to a special education program for gifted students in a private middle school. Gifted students in the current study were middle school attendees, fifth through eighth grades: 17 students (10 boys and 7 girls) were in fifth grade; 16 (8 boys and 8 girls) students were in sixth grade; 15 students (9 boys and 6 girls) were in seventh grade, and 15 (10 boys and 5 girls) students were in eighth grade. The participants’ ages ranged from 11 to 15 with the mean age of 13.4. All participants were from either middle or upper class families living in a metropolitan city in Turkey. Middle school students were included in the current study because eight grade
students in Turkey face with career decision-making process, which is relevant to their job preferences, first time in their lives. According to their decision, they are placed into a high school among different kinds of options such as vocational, science, social, seminary, and technical high schools.

The gifted education class within the school was a special education class for gifted students and had its own education program. In other words, gifted students who were selected and placed into the program attended to a separate class composed of only gifted children. In that class, gifted students were enrolled in a differentiated and enriched education program. As for the selection criteria for gifted program, a group intelligence test (Primary Mental Abilities Test, which consisted of five dimensions measuring quantitative abilities, language, shape-space, deduction, and discriminating), first of all, was administered to candidate students. Then, an individual intelligence test (Wechsler Intelligence Scale for Children [WISC-R]) was administered to the students who passed a cut-off point on the group test. Students whose individual intelligence test scores were 130 IQ or above were taken to a one-week orientation program. After the orientation program, gifted program commission selected 20 gifted students for that special class in each grade.

**Instrument**

A survey was administered to gifted students, developed by the researchers. The survey consisted of two parts: The first part includes 4 questions about demographic information that are gender, age, grade level, and family income. In the second part, gifted students were asked two open-ended questions (‘What job do you plan to do in the future?’ and ‘Why do you want to do this job?’) and they were required to write down their answers for the questions. Students were allowed to write down more than one job name as response to the first question. As for the second question, ten lines were provided so that the students specify their reasons behind their job preferences. Open-ended questions both enable gifted students to clarify their feelings, perceptions, and aspirations and help them make connections between their interests and job opportunities because they often have unusual or abstruse interests (Kerr & Sodano, 2003). Traditional career inventories and assessment tools are usually normed to the general population. For these reasons, open-ended questions, instead of closed ended questions or standardized tools, were preferred. The survey was in Turkish and completed by the students in Turkish. The results were then translated into English while analyzing the data.

**Procedure**

The participants of the study were teenagers; therefore, necessary ethical and institutional permissions from the students’ parents as well as from the school administration were obtained before conducting the study. A letter of parental approval for the participation was sent to parents by the school administrator. The students with the returned approval letter by their parents were included in the study. The survey was administered to the participants in each grade during a lesson in the classroom with the help of a school counselor (total 4 administrations to four separate grades). Before the administration of the survey, a brief explanation about the study in general and the survey was provided by the researchers. The participants were asked to answer each close-ended demographic question along with two open-ended questions sincerely. The administration of the survey took approximately 40-50 minutes.
Data Analysis

Students’ answers given to the open-ended questions of ‘What job do you plan to do in the future?’ and ‘Why do you want to do this job?’ were analyzed by two different researchers separately for the inter-rater reliability of the study. The researchers were bilingual and spoke the two languages well. Students were given pseudonyms such as S1, S2, and S3. The survey and the students’ answers in the current study were originally in Turkish; therefore, they were translated into English by the researchers. In the analysis of the students’ answers to the demographic questions, descriptive analysis such as frequency and percentage were used. For the analysis of the open-ended question, content analysis was used.

The researchers listed and grouped students’ job preferences based on the similarities among the job choices and analyzed the students’ writings by stressing on the reasons behind their choices. Common job areas were identified as medicine, engineering, science, defense, space science, law, design, sport, and business. While analyzing the job preferences of the students, how certain the students were in their decision and how long they would like to pursue their career were also taken into account. While analyzing the data, certain quotes from the students' writings were obtained and presented under the results section.

Results

This section presents results of the study along with tables. Besides, selected direct quotes about the occupational preferences of the students are included. Frequencies and percentages of the gifted students’ occupational preferences grouped by two researchers are given in Table 1.

<table>
<thead>
<tr>
<th>Occupational preference</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>17</td>
<td>26.9</td>
</tr>
<tr>
<td>Medicine</td>
<td>15</td>
<td>23.8</td>
</tr>
<tr>
<td>Design</td>
<td>6</td>
<td>9.5</td>
</tr>
<tr>
<td>Science</td>
<td>4</td>
<td>6.3</td>
</tr>
<tr>
<td>Defense</td>
<td>3</td>
<td>4.7</td>
</tr>
<tr>
<td>Space Science</td>
<td>2</td>
<td>3.1</td>
</tr>
<tr>
<td>Law</td>
<td>2</td>
<td>3.1</td>
</tr>
<tr>
<td>Sport</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Business</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Undecided</td>
<td>12</td>
<td>19.0</td>
</tr>
<tr>
<td>Total</td>
<td>63</td>
<td>100</td>
</tr>
</tbody>
</table>

As indicated in above table, 26.9 percent of the students wanted to be engineer, 23.8 percent of students stated a job in the field of medicine, 29.7 percent of the students stated other jobs preferences. Finally, 19 percent of the students specified that they have not decided yet about their occupations. Gifted students usually wrote specific preferences about what career they want to pursue rather than general occupational areas. Among the gifted students, 32 (54%) students wrote a clear and specific job name only for the engineering and medicine fields. These specific jobs were examined under the field of engineering (Table 2) and medicine (Table 3).
Table 2. Jobs in engineering field preferred by gifted students

<table>
<thead>
<tr>
<th>Engineering fields</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer engineering</td>
<td>5</td>
<td>29.4</td>
</tr>
<tr>
<td>Genetic engineering</td>
<td>5</td>
<td>29.4</td>
</tr>
<tr>
<td>Mechatronic engineering</td>
<td>1</td>
<td>5.8</td>
</tr>
<tr>
<td>Civil engineering</td>
<td>1</td>
<td>5.8</td>
</tr>
<tr>
<td>Electrical and electronic engineering</td>
<td>1</td>
<td>5.8</td>
</tr>
<tr>
<td>Engineering</td>
<td>4</td>
<td>23.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
<td>100</td>
</tr>
</tbody>
</table>

As shown in Table 2, among gifted students who wanted to pursue a career in engineering, 76.5% wrote a clear and specific engineering field while only 23.5% wrote engineering in general. The most preferred jobs in engineering field were computer engineering and genetic engineering. The students who were certain on their decisions usually stated specific job names along with detailed career objectives such as university name that they want to attend. Some quotations from the gifted students who were certain to be engineers are as follows:

S3: In the future I want to be a computer engineer because I love computers.
S7: I want to be a genetic engineer. I want to improve different things by conducting good studies about my profession.
S9: I want to study at Bosporus University and become an engineer.

Table 3. Medical fields preferred by gifted students

<table>
<thead>
<tr>
<th>Medical fields</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatric</td>
<td>2</td>
<td>13.3</td>
</tr>
<tr>
<td>Medical science</td>
<td>2</td>
<td>13.3</td>
</tr>
<tr>
<td>Dentistry</td>
<td>1</td>
<td>6.6</td>
</tr>
<tr>
<td>Cardiology</td>
<td>1</td>
<td>6.6</td>
</tr>
<tr>
<td>Oncology</td>
<td>1</td>
<td>6.6</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>1</td>
<td>6.6</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>1</td>
<td>6.6</td>
</tr>
<tr>
<td>Doctor</td>
<td>6</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>100</td>
</tr>
</tbody>
</table>

According to Table 3, 60% of the gifted students who specified a job in the field of medicine stated a specific branch while 40% stated `doctor` in general. The most preferred medical branches were pediatric and medical science. Some quotes from the students who wanted to be medical personnel are as follows:

S32: I want to be a doctor in the future.
S21: After graduating high school, I want to go to a medical school. Difficult though, I want to study pediatrics. As well I love children.
S24: I want to continue my life as an oncology specialist and I want to dedicate myself to this path.

Some gifted students also aimed to promote in their profession and reach a higher level in their professional career. There were students who mentioned studying Masters (24%) or
Ph.D. (15%) degree. In total, 39% of the students (49% of the boys and 32% of the girls) stated graduate level professional career. Some direct quotes from those students are given below:

S51: I want to rise to the best through a master’s degree and Ph.D.
S62: I want to go abroad for a master’s degree and Ph.D.
S33: I want to become a computer engineer and have a master’s degree after university to produce higher quality games.

Twelve (19%) gifted students were categorized as undecided because they were found to be hesitant about their careers due to different reasons. Six of whom could not decide because they were confused between multiple career options. Some others stated that they have not planned their career yet.

Nineteen percent of the gifted students wrote that they have not decided about their profession yet in their responses: Fifty percent of whom stated that they have not decided yet because they want multiple careers, the other half stated that they simply have not chosen their profession yet. A few direct quotas from undecided and confused students were presented below:

S2: It is early to think about my profession. Especially, I don’t have any information about the high school that I’m going to attend and which department.
S15: I am thinking of mechanical engineering, architecture, designing, ergonomic design or conservatory, but I have not decided yet.
S53: I didn’t decide my future profession yet. I want to be doctor, engineer or academician.
S27: I haven’t planned it exactly.

Occupational preferences of gifted students were also analyzed in terms of gender. Frequencies and percentages were calculated and presented in Table 4.

<table>
<thead>
<tr>
<th>Occupational Preference</th>
<th>Gifted Girls</th>
<th>Gifted Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Engineering</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>Medicine</td>
<td>11</td>
<td>42.3</td>
</tr>
<tr>
<td>Design</td>
<td>5</td>
<td>19.2</td>
</tr>
<tr>
<td>Science</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>Defense</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>Space Science</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Law</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sport</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Business</td>
<td>2</td>
<td>7.6</td>
</tr>
<tr>
<td>Undecided</td>
<td>5</td>
<td>19.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

According to Table 4, medicine (42.3%) was the top preference for gifted girls. The percentage of gifted boys who wanted to be in the field of medicine was 11.1%. The top occupational preference for gifted boys was engineering (44.4%). The percentage of girls choosing engineering was 3.8%. Gifted girls chose design (19.2%), law (7.6%), engineering (3.8%), science (3.8%), and defense (3.8%), respectively. Gifted girls did not pronounce space science, sport, and business as career options. On the other hand, boys stated science...
(5.5%), defense (5.5%), space science (5.5%), design (2.7%), sports (2.7%), and business (2.7%), respectively. Law was not stated as an occupational preference by gifted boys. Besides, the percentages of undecided student were similar for both gifted boys (19.4%) and girls (19.5%).

Discussion

In this study, gifted students’ career choices were examined. The results showed that the most preferred occupational fields were engineering, medicine, design, science, defense, space science, law, sports, and business, respectively. The reasons behind these decisions were specified by the gifted students as their abilities and interest, popularity of field within culture, and further career opportunities. This finding is similar to that of a study conducted by Colangelo and Kerr (1990), which suggest that gifted students had career preferences in five areas: engineering, medicine, physical sciences, social sciences, and business. It can be said that career preferences of gifted students do not change from 1990 to 2015. Also, Kelly (1992) ranked the popularity of gifted students’ occupation choices as applied physical science (architecture, engineering and system analysis), writing and law, biological and medical science, and physical science. Kher-Durlabhji, Lacina-Gifford, Carter, and Lalande (1997) pointed out that gifted students ranked being scientist and doctor as their top choices and occupations in the sample consisting of 7th and 8th grade students. The current study with Turkish gifted students unearthed the similar results with previous studies conducted in other cultures and years ago.

Kerr and Fisher (1997) stated that gifted students have usually inclination not to select career paths in their area of expertise, such as English or social studies. Rather, gifted students’ career choices are usually based on conformity with peers, money-making potential, and pragmatism, like the rest of their peers (Astin, Green, & Korn, 1988). Leung, Conoley, and Scheel (1994) also found that gifted students have tendency to select prestigious jobs. Gifted students in the current study had inclinations to choose safe careers in Turkey. Safe career means high probability of finding a job after basic training in university. As occurred in the current study, student indicates that salary and availability of jobs are specific factors in their career preference (Paa & McWhirter, 2000). It can be said that careers in medical sciences have recently been among the most preferred fields by high achieving students and may be perceived as prosperous and prestigious in Turkey. The students’ career preferences in the current study may be considered as traditional fields. Kniveton (2004) and Good (1981) reported that parents and teachers have the greatest influence on students career decisions. Therefore, the students could be influenced by their parents and teachers as well as the lack of role models in nontraditional fields.

More than half of the students (54.9%) who participated in the present study stated a clear and specific career choice. For example, 76.5% of gifted students preferring engineering stated a specific job name such as computer engineering (29.4%) or genetic engineering (29.4%), which were the top preferred engineering fields. Similarly, 60% of gifted students who desired a career in medical field pointed to a specific job name in the field of medicine. Greene (2003) stated that gifted students demonstrate earlier career maturity, and they are more certain of their career choices than non-gifted students. Gifted students’ earlier career maturity may enable them to have more specific career preferences. Apart from career maturity, it should also be taken into account that higher expectations from gifted students could force them to specify certain job preferences earlier than their non-gifted peers (Emmett & Minor, 1993).
Almost half of the gifted students (39%) aimed higher level education such as master’s and doctoral degree in their professional career. According to Stewart (1999), gifted students often choose careers that require ten or more years of postsecondary training. Also, Kerr and Sandro (2003) reported that both gifted boys and gifted girls have wide range of higher career aspirations. This was also supported by the result obtained from the current study. However, when compared with gifted girls, gifted boys had higher career aspirations. According to Maxwell (2007), many studies confirm that gifted girls choose careers that do not correspond with their intellectual abilities. This situation may be derived from conflict messages from the society received by gifted girls regarding intelligence and femininity.

Some of the gifted students (19%) were undecided about their job preferences yet. Half of these undecided students stated that they would like to pursue multiple professions. That is why they were undecided yet. The other half did not have specific job preferences yet. This result partially supported the findings of a previous study (Leung, 1998), suggesting that many gifted students who were undecided about their career choice (about 48%) and academic path that they want to pursue (about 36.3%). However, in the present study, the percentage of undecided students is not as much as Leung’s findings. According to Pyryt (1992), gifted individuals experienced difficulty about the presence of many interests and abilities, each characterized by some degree of strength. So, they cannot make occupational decisions easily. Some gifted students stated that they want to fulfill multiple careers at the same time. Also, gifted individuals may have problems about occupational decision such as making a perfect choice, and the ambivalence between pleasing both significant others and self (Emmett & Minor, 1993). Kerr (1981) categorized career decision-making problems into three areas: (a) making a single career choice despite multipotentiality, (b) making long-range career plans before having the necessary emotional maturity, and (c) reconciling personal career goals and social expectations. These problem areas might play roles on gifted students’ decisions in the present study. In addition, the age range of the participants should be taken into account while evaluating the decisions of undecided students because being undecided in those ages cannot be interpreted as late for occupational decision.

Reis, Callahan and Goldsmith (1996) found that both gifted boys and girls demonstrated similar interest in occupations such as medicine, science, law, and business. However, there were differences between boys and girls in terms of their professional preferences in the current study. Gifted girls’ top occupational choices were medicine (42.3%), design (19.2%), and law (7.6%), respectively. On the other hand, gifted boys’ top three occupational choices were engineering (44.4%), medicine (11.1%), and science (5.5%), respectively. These findings were also supported by other researches. For example, Campbell and Clewell (1999) indicated that gifted girls avoid pursuing careers in the physical sciences, computer science, and engineering; however, similar numbers of gifted girls and gifted boys were interested in mathematics, natural sciences, and health sciences. Among normal population, it was also observed that engineering attracts a bigger proportion of boys than girls as a career interest. (Croson & Gneezy, 2009).

It seems that there have been different findings on the job preferences of boys and girls. The differences between the studies conducted in different decades may be explained by the effect of cultural change, changes in gender roles, and changes in possible stereotypes about gender with time. Furthermore, the differences within the same time interval may be attributed to cultural values and gender role differences in different cultures. Cultural orientation is one of the fundamental elements of career decision-making processes among adolescents (Jung & McCormick, 2011; Jung, McCormick, Gregory & Barnett, 2011). For instance, it was observed that girls were usually directed to career fields of medicine and education in Turkey (Bozgeyik, Doğan & İskılar, 2010). Although Mendez (2000) found that
gifted adolescent girls aspire careers that are more nontraditional, gifted girls in the current study preferred traditional careers such as medicine and design. Kentli (2014) studied students’ vocational aspirations with a sample of 115 non-gifted students who were attending fifth grade elementary school in Turkey. She found that girls most-frequently (22%) and boys second most frequently (17%) mentioned medical doctor as their aspired vocation. Besides, engineering was the most frequently specified vocation by boys (25%), and one of the least frequently stated by girls (3%). It can be said that gifted students’ career aspirations seem to be similar to normal population in Turkey.

There is no doubt that boys and girls are affected by several factors in career decision making process. They have become puzzled about what they want to be (Kerr, 1995). Expectations of parents, teachers, peers, and the society may have impact on career aspirations of gifted students. Gassin, Kelly, and Feldhusen, (1993) claimed that gifted girls tend to demonstrate less career certainty than gifted boys do during grades 7 to 12. However, there were not any differences between gifted boys and gifted girls regarding percentages of undecided students about their professional career. These results again are subject to change by culture, gender role definition in specific culture, and time.

As a result of the current study, gifted students had tendency to choose safe and prestigious careers and had specific and higher career goals. Some of the gifted students have not planned their careers yet, may be partially due to their multipotentiality or multiple role models. Also, the current study set light to gender differences in the career interests of gifted students. These inferences are important to develop a career counseling intervention programs for gifted students in Turkey.

The current study had some limitations. One of them was the lack of a comparison group. There was no opportunity to compare gifted and non-gifted students. Another limitation was that the gifted students in the present study were from a special gifted program. Therefore, they may have received a career education within the special program that they were in. In other words, the participants of the current study demonstrated earlier career maturity than their non-gifted peers thanks to possible career counseling services provided. Therefore, further research is encouraged to examine career development of gifted students in regular classrooms in order to explore if earlier career maturity of the gifted students derive from giftedness or any other experience, such as training and career counseling. Besides, the gifted students in the current study were identified as gifted based on only standardized intelligence tests. However, contemporary approaches involve multiple constructs such as creativity and motivation. The sample of the current study should be evaluated by regarding this limitation.

It is clear that further research is necessary on the career development and occupational decision-making difficulties of gifted students. For instance, some factors (e.g., race, gender, socioeconomic status, values, and interests) influencing careers (Herr, Cramer, & Niles, 2004) may be investigated. Self-efficacy levels of gifted students in career decision making process can also be examined. In addition, parents and peers may have influences on students’ career aspiration (Holland, 1994). So, further research that considers these factors among gifted students may be informative for gifted education. Counselors with a strong empirical base will be in a better position to deal with the career development and occupational decision-making needs of the gifted student.
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