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## Personality types of students who study at the departments of numeric, verbal and fine arts in education faculties

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### Abstract

Personality types create significant differences to learning approaches and teaching methods in regard to learner reaction. Therefore, knowing the personality types of students is a vital factor in determining the best approach that will be applied to students by the instructors. From each three majors of numeric, verbal and fine arts, one department that represents each one of them respectively has been chosen. Therefore, 219 students who study at the departments of Maths, Turkish Language and Fine Arts Teaching of Atatürk Education Faculty at Marmara University have been applied Myers-Briggs Type Indicator (MBTI). At the analysis part of the research, besides Pearson Chi-squared test which has been used to compare the qualitative data, such descriptive statistical methods like frequency, percentage, average and crosstabs test have also been used. According to the research findings, significant relationship has been found between the departments of students and their personality types. The students who study at the department of fine arts education demonstrate significant differences of the personality types while students who study at the departments of verbal and numeric education demonstrate similarities to each other in regard to personality types.

*Keywords:* Education, Art education, Personality types , Myers Briggs Type Indicator

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### 1. Introduction

Personality, which is one of the widest range of terms, is a term that includes the characteristics of a person's interests, attitudes, abilities, physical appearance and harmony to his environment. Being one of the widest range of terms results in having a lot of various definitions. Gordon W. Allport (1897-1967), one of the American psychologists, describes personality as the dynamic "coordination" of the psychophysical systems determining a person's harmony to his environment (Baymur, 1994).

A Swiss psychiatrist, Carl Gustav Jung (1875-1961) explains the personality term by examining the parts that form personality types, how personality has come into existence and the process of change in time (Geçtan, 1993).

According to Jung, there are four functions that people use while directing themselves and their inner worlds. These functions are perception through our senses, sensation, meaning and thinking that provides comprehension, feeling that measures and evaluates, and intuition that mentions about future possibilities and gives information about the atmosphere enclosing all the experiments (Fordham, 2004).

Jung's attribute to cognitive mind psychology has come out mostly in his works in "Psychological Types". Jung has classified people as introvert and extravert. According to Jung, extravert people are those who do not avoid from unknown environments and danger, and who can harmonize with specific circumstances easily, and also who are sympathetic, friendly, sincere, intimate and lovable. On the other hand, introvert people are those who are reluctant,

indecisive, thoughtful, shy, suspicious, in defense to some extent and who lay low and sing slow, roll with the punch and prefer hiding behind a careful image (Kuzgun & Deryakulu, 2004).

Jung basically uses cognitive psychology in an effort to classify people into specific types. When someone is classified as introvert or extravert, this means that he uses one or the other of his conscious behavior. Though this fact, no one ever has a certain personality type. For example, the introvert individual who is quite silent and shy can show significant enthusiasm and liveliness to a subject he is interested in. However, he cannot still have a relationship as good as extravert people have (Fordham, 2004).

Jung claims that introvert and extravert people will behave consistently with their introvert and extravert personality all their life, but they can rarely behave inconsistently at different circumstances.

In type theory, personality of a person is emerged by four preferences in regard to the use of perception and judging processes. Each preference is a turnout in an individual's improvement, and this determines which of the two formations which are contrary, but having the same value will fit to him. According to type theory, type preference to which people direct themselves appropriate to their energy and wishes is determined by the innate preferences that guide them at each turnout of their life (Myers & Myers, 1997).

Jung claims that there are eight psychological types based on two attitudes and four functions. Those are thinking extravert type and thinking introvert type, sensitive extravert type and sensitive introvert type, sensing extravert type and sensing introvert type, intuitive extravert type and intuitive introvert type (Schult & Schultz, 2009; Geçtan, 1993).

"Thoughtful Education Model" which has been developed by Hanson and Silver has focused on how to use this theory of basic concepts in education based on Jung's typology and has explained the qualifications of students who have various personality types.

Students who have the sensing thinking personality type need concrete, certain and clear information and want to know what is right and what is wrong. The students need a constructivist environment and lose their interest when the things which are done are very slow and not practical. These students learn best via repeating, doing exercise, memorizing and real life experiences (Kuzgun & Deryakulu, 2004).

Students who have the intuitive thinking personality type are sceptical, analyzer and logical. They need to find out the reasons and proof, and prefer to work individually. They subdivide the subjects and ideas in the comprehension process, want to be challenged and creative, and they deal with useful and meaningful subjects. They behave patiently and insistently for the subjects and situations they are interested in (Kuzgun & Deryakulu, 2004).

Data process of students who have sensation personality type is based on their personal lives. They trust and respect their classmates, and learn by collaborating with them. They care relationships in harmony with their friends more than mastering a subject, and behave sensitively to being approved or not approved. These students who learn best by speaking like group works very much (Kuzgun & Deryakulu, 2004).

Students who have intuitive personality type try to find out the probable patterns and links of a subject's relation with the previous learning experiences while learning a subject. They care being original and esthetic, and learn easier in various environments. However, they have difficulty in planning and using the time effectively. They want to see the whole picture rather than details, and get bored of the assignments which are routine and requiring rote memorization (Kuzgun & Deryakulu, 2004).

### *1.1. Purpose of the study*

The research, which has been made by considering the fact that personality types of students have an effect on their field choice, aims to determine the personality types of students who study in the numeric, verbal or fine arts departments. In the light of these results, it has been found out if those students who study at the departments of numeric, verbal and fine arts show differences according to their personality features of (1) introvert-extravert, (2) sensing-intuitive, (3) thinking-feeling and (4) judging- perceiving.

## **2. Method**

The research is a scan model research which is based on the determination of the personality types of students who study at the departments of numeric, verbal and fine arts. Therefore, from each of these three departments, one

department has been chosen. Maths Teaching from numeric department, Turkish Language Teaching from verbal department and Fine Arts Teaching from fine arts department have been included to the research.

### 2.1. Participants

The research has been made to 219 students who are determined via a simple random sample from the students who study at the Atatürk Education Faculty, Marmara University. 125 of them are girls and 94 of them are boys. 75 of these students study at the department of Fine Arts Teaching, 73 of them study at the department of Turkish Language teaching, and 71 of them study at the department of Maths Teaching.

### 2.2. Instruments

Myers Briggs Type Indicator (MBTI) has been used to determine the personality types of students, and Personal Information Form, which has been prepared by the researchers, has been used to find out the demographic features of students.

#### 2.2.1. Myers Briggs Type Indicator

MBTI, which has been developed by Isabel Myers and Katharine Briggs, is an inventory whose basis is the Jung's theory. MBTI is comprised of 94 compulsory selective questions. The questions include two or three choices, and have been designed to provide four dimension scoring. The response given to MBTI questions gets the score according to the attitude of the student answering the questions. If the answer of the student who is given the test is one of the followings; introvert (I), sensing (S), feeling (F) or perceptive (P), the scoring value of the questions is 1. If the answer of the same student is mostly one of the followings; extravert (E), intuitive (I), thinking (T) or judging (J), the scoring value of the questions is 0. The G form of MBTI has been used in this research. The scale has been adjusted to Turkish by Tuzcuoglu, and the reliability has been tested. While testing the reliability of MBTI scale, reliability coefficient has been calculated at the first phase. For boys, the correlation coefficient which has been acquired via using Spearman-Brown equivalent formula has been found as EI .82, SI .87, TF .84 and JP .88. For girls, the correlation coefficient has been evaluated as EI .84, SI .86, TF .80, JP .87. In total, the Kocficient Alfa internal consistency coefficient of the inventory has been found EI .83, SI .83, TF .76 and JP .80 for 9.216 samples of girls and boys. The test retest reliability has been done of the MBTI inventory, and the results have been found as the following; EI .82, SI .87, TF .78 and JP .81 after five weeks interval (Tuzcuoglu, 1999).

#### 2.2.2. Personal Information Form

The dissertations and the questions in the researches related to the subject have been used, and expert views have been consulted while preparing the Personal Information Form. The Personal Information Form includes such questions as the students' gender, department, graduated high school and level to gather information about the background of the students.

### 2.3. Data Analysis

At the analysis part of the research, statistical package program has been used for the statistical analysis. Moreover, besides Pearson Chi-squared test which has been used to compare the qualitative data, such descriptive statistical methods like frequency, percentage, average and crosstabs test have also been used.

## 3. Results

Table 1. Chi-squared test results related to the departments and introvert-extravert personality features of students

|            |                           | Introversion        | Extraversion | Total  |        |
|------------|---------------------------|---------------------|--------------|--------|--------|
| Department | Fine Arts Teaching        | Count               | 28           | 47     | 75     |
|            |                           | % within Department | 37,3%        | 62,7%  | 100,0% |
|            |                           | % of Total          | 12,8%        | 21,5%  | 34,2%  |
|            | Turkish Language Teaching | Count               | 41           | 32     | 73     |
|            |                           | % within Department | 56,2%        | 43,8%  | 100,0% |
|            |                           | % of Total          | 18,7%        | 14,6%  | 33,3%  |
|            | Maths Teaching            | Count               | 39           | 32     | 71     |
|            |                           | % within Department | 54,9%        | 45,1%  | 100,0% |
|            |                           | % of Total          | 17,8%        | 14,6%  | 32,4%  |
| Total      | Count                     | 108                 | 111          | 219    |        |
|            | % within Department       | 49,3%               | 50,7%        | 100,0% |        |
|            | % of Total                | 49,3%               | 50,7%        | 100,0% |        |

According to Table 1, there is significant relationship between the departments and introvert-extravert personality features of students ( $\chi^2_{(2)}=6,573$ ;  $p<.05$ ). While the students who study at the department of Fine Arts Teaching have extravert personality type, the students who study at the Maths Teaching and Turkish Language Teaching departments have introvert personality type.

Table 2. Chi-squared test results related to the departments and sensing-intuitive personality features of students

|            |                           | Intuition           | Sensing | Total  |        |
|------------|---------------------------|---------------------|---------|--------|--------|
| Department | Fine Arts Teaching        | Count               | 35      | 40     | 75     |
|            |                           | % within Department | 46,7%   | 53,3%  | 100,0% |
|            |                           | % of Total          | 16,0%   | 18,3%  | 34,2%  |
|            | Turkish Language Teaching | Count               | 17      | 56     | 73     |
|            |                           | % within Department | 23,3%   | 76,7%  | 100,0% |
|            |                           | % of Total          | 7,8%    | 25,6%  | 33,3%  |
|            | Maths Teaching            | Count               | 12      | 59     | 71     |
|            |                           | % within Department | 16,9%   | 83,1%  | 100,0% |
|            |                           | % of Total          | 5,5%    | 26,9%  | 32,4%  |
| Total      | Count                     | 64                  | 155     | 219    |        |
|            | % within Department       | 29,2%               | 70,8%   | 100,0% |        |
|            | % of Total                | 29,2%               | 70,8%   | 100,0% |        |

According to Table 2, there is significant relationship between the departments and sensing-intuitive personality features of students ( $\chi^2_{(2)}=17,448$ ;  $p<.01$ ). The students who study at the departments Fine Arts Teaching, Maths Teaching and Turkish Language Teaching have sensing personality type. But the ratio of the students who have intuitive personality type has been found out to be higher with the students who study at the department of Fine Arts Teaching in comparison with other departments.

Table 3. Chi-squared test results related to the departments and thinking-feeling personality features of students

|  |  | Thinking | Feeling | Total |
|--|--|----------|---------|-------|
|--|--|----------|---------|-------|

|                           |                           |                     |       |       |        |
|---------------------------|---------------------------|---------------------|-------|-------|--------|
| Department                | Fine Arts Teaching        | Count               | 70    | 5     | 75     |
|                           |                           | % within Department | 93,3% | 6,7%  | 100,0% |
|                           |                           | % of Total          | 32,0% | 2,3%  | 34,2%  |
| Turkish Language Teaching | Turkish Language Teaching | Count               | 58    | 15    | 73     |
|                           |                           | % within Department | 79,5% | 20,5% | 100,0% |
|                           |                           | % of Total          | 26,5% | 6,8%  | 33,3%  |
| Maths Teaching            | Maths Teaching            | Count               | 57    | 14    | 71     |
|                           |                           | % within Department | 80,3% | 19,7% | 100,0% |
|                           |                           | % of Total          | 26,0% | 6,4%  | 32,4%  |
| Total                     | Total                     | Count               | 64    | 185   | 34     |
|                           |                           | % within Department | 29,2% | 84,5% | 15,5%  |
|                           |                           | % of Total          | 29,2% | 84,5% | 15,5%  |

According to Table 3, there is significant relationship between the departments and thinking-feeling personality features of students ( $\chi^2_{(2)}=6,844$ ;  $p<.05$ ). Thinking personality type is more common with the students who study at the department of Fine Arts Teaching than the students who study at the Maths Teaching and Turkish Language Teaching departments.

Table 4. Chi-squared test results related to the departments and judging-perceiving personality features of students

|                           |                           |                     |         |            |        |
|---------------------------|---------------------------|---------------------|---------|------------|--------|
| Department                | Fine Arts Teaching        | Count               | Judging | Perceiving | Total  |
|                           |                           | % within Department | 37      | 38         | 75     |
|                           |                           | % of Total          | 49,3%   | 50,7%      | 100,0% |
| Turkish Language Teaching | Turkish Language Teaching | Count               | 16,9%   | 17,4%      | 34,2%  |
|                           |                           | % within Department | 48      | 25         | 73     |
|                           |                           | % of Total          | 65,8%   | 34,2%      | 100,0% |
| Maths Teaching            | Maths Teaching            | Count               | 21,9%   | 11,4%      | 33,3%  |
|                           |                           | % within Department | 48      | 23         | 71     |
|                           |                           | % of Total          | 67,6%   | 32,4%      | 100,0% |
| Total                     | Total                     | Count               | 21,9%   | 10,5%      | 32,4%  |
|                           |                           | % within Department | 64      | 133        | 86     |
|                           |                           | % of Total          | 29,2%   | 60,7%      | 39,3%  |

According to Table 4, there is significant relationship between the departments and judging-perceiving personality features of students ( $\chi^2_{(2)}=6,264$ ;  $p<.05$ ). The students who study at the Maths and Turkish Language Teaching department have judging personality type. The ratio of the students who have perceiving personality type has been found out to be higher with the students who study at the department of Fine Arts Teaching in comparison with other departments.

#### 4. Discussion

According to the research results, significant relationship has been found between the departments and introvert-extravert, sensing-intuitive, thinking-feeling, judging-perceptive personality types. Extravert personality type is more common among the students who study at the Fine Arts Teaching department while introvert personality type is more common among the students who study at the Turkish Language Teaching and Maths Teaching departments. When it comes to the issue of sensing-intuitive personality types, the students who study at the departments Fine Arts Teaching, Maths Teaching and Turkish Language Teaching have sensing personality type.

But the ratio of the students who have intuitive personality type has been found out to be higher with the students who study at the department of Fine Arts Teaching in comparison with other departments. There is a correlation between professional interests of the students and Jung's typology according to the researches made by Myers and McCaulley (1985). In this research, those students who have intuitive personality type take an interest in the occupations related to art (Kuzgun & Deryakulu, 2004). Therefore, having an intuitive personality type among the students who study at the Fine Arts Teaching department supports the research results.

Extravert sensing personality type is more common for the students who study at the Fine Arts Teaching department. According to Jung, these types have an interest to arts.

The students who study at the Turkish Language Teaching and Maths Teaching departments have been identified as introvert thinking type. Myers & Myers (1997) emphasizes that introvert thinking types behave logically, criticize the things more objectively, and take an interest in maths, philosophy and psychology.

When thinking-feeling personality types are considered, feeling personality type has been found out to be more common the students who study at the departments of Maths and Turkish Language Teaching. When judging-perceiving personality types are considered, the ratio of students who have perceiving personality type has been found out to be higher with the students who study at the department of Fine Arts Teaching. In addition, the ratio of students who have judging personality has been found out to be higher with the students who study at the department of Maths and Turkish Language Teaching.

Finally, generalizability of the results from this study is limited with the sample of students who have been chosen from the departments of numeric, verbal and fine arts. For further studies, the relationship between field selection and personality types should be done via considering the department of students. Furthermore, studies related to the learning styles appropriate to the personality types of students from various departments should be done considering the evaluation with empirical methods.

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