WEB BASED PROFESSION ORIENTATION in ELEMANTARY EDUCATION

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ABSTRACT

In Turkey, the profession orientation programs for elementary education students have a critical importance. In the aspect of profession orientation application, the least dealt population is unfortunately the elementary school students. In this study, the problems caused by insufficient orientation and guidance of profession for those students are investigated and a web based software is developed to reduce these problems as much as possible. Mentality fields are determined in accordance with Multi-Intelligence theory and recommendations are presented to students in order to get more achievement for profession selection using a software developed for this purpose.

Keywords: *Profession Orientation, Profession Guidance, Multi-Intelligence, Expert Systems*

INTRODUCTION

Choosing a profession is one of the most important decisions for individuals in their life. It should be done carefully because there is no chance to go back and compensation. The idea of importance of profession orientation had been accepted from U.S.A. since 1890s and the first researches on it had been started to be done. One of the pioneer researches is George MERRIL and his idea was the initiator of guidance counselor (Kuzgun, 2000).

Usage of computers in profession orientation is very important and supports to get current knowledge without any interpretations in purified, and good organized way. Creating interaction with computers more enthusiastic and getting more responsibility about planning their futures are important to transfer their ideas and information about their abilities to computer with realistic and without any hesitations (Kuzgun, 2000).

Although there are 35 581 primary schools, there are only 3 157 guidance counselors according to statistical data gathered by Ministry of National Education in 2004-2005. This data shows that there is only one counselor per 11 schools. If it is thought that the students make their profession orientation with a counselor, a question can be asked like "If there is no counselor in a school, that time how might be an orientation made?". Consequently, there is no concrete research made by Ministry of National Education on this question. Considering the lack amount of counselors in Turkey, it must be discussed that how a profession orientation can be made.

The current status of profession orientation in primary schools may be summarized as follows:

According to Journal of Ministry of National Education published in September 2003 with issue 2552; a questionnaire that is used to observe and determine the intelligence field of students was applied over students. Then all questionnaires collected and assessed by counselors. These assessment results and emotional behaviors of students are used to designate the decisions of them about their professions in accordance with academic, fine arts, occupational and technical education. Next, designated forms are transferred to next institution of education with their diplomas ("MNE", 2003). But, the usage of this method is not a good way to make orientation because;

- Filling the observation questionnaire is a compulsory process.
- Gathering data and calculating the scores of the results must be done by counselors. So, if there are too many students and too few counselors (usually one) in school, it requires counselor to spend much time, and it is very hard to collect results.
- The problems that are met during interpretation of results that students' intelligence fields should be clarified according to multi-intelligence theory. This process usually is made haphazardly. In addition, a counselor has to have good knowledge and background about profession orientation in order to make a good decision.
- If there is no counselor in the primary school, then this method can not be applied.
- The students and their guardians are not included directly to decision, therefore recommendations made by counselor have weak acceptance rate.

The main objective of this study is to increase activities which can be used for profession orientation for the students who study in primary schools. According to the point of view of this idea;

- Redundant works loaded to guidance counselor are reduced (such as computing and assessment of results, designating the intelligent field, etc.)
- Orientation of profession might be done without requirement of guidance counselor (This does not mean that guidance counselor is not necessary, but the method may be applied without a counselor).

- The consistency of the method might be increased by including the students and their guardians to the system.

CHOOSING THE PROFESSION and ORIENTATION PROGRESS

A profession can be defined as a combination of job that is used to live, rules integrated and identified by society, knowledge and other skills gained by education, and other activities that affect the owner (Kuzgun, 2000).

Profession orientation can be defined as entirely aids that can be used for identifying the students themselves, choosing the best profession according to their tendencies, and preparing and developing themselves to real world and their future profession (Yesilyaprak, 2004).

The orientation of profession training is realized by helps of teachers and other involved persons in the tendency of education for students in our country. Basic goal of whole orientation of profession training is steering the individuals who have different intelligence fields and features into the best profession as much as possible they can adapt.

Profession Orientation Activities in Elementary Education

The first period of elementary education (up to K12, age 5th-12th) is expressed as Awakening Stage for K12 individuals. The second period of elementary education (age 12th-15th) is a phase that is important for self-recognition, finding out the self-power, and recognizing the occupations. The main goals of profession orientation training that will be applied to the students, can be defined as follows;

- Supporting the students' enthusiasm of learning
- Developing the positive aspects of views to profession
- Giving the idea that there is requirement for at least one profession
- Learning behaviors that is required for working life

Multi-Intelligence Theory

The profession orientation trainings accepted by Ministry of National Education is dependent to multi-intelligence theory. And many researches have been investigating this method for many years (Greenhawk, 1997; Hoerr, 1996; Ellison, 1992; Emig, 1997; Beam, 2000; Campbell, 1990; Dunn, Denig, & Lovelace, 2001; Bümen, 2001; Gardner, 1999 & 1983)

Gardner has written on his research "Human brain has more than one intelligence field. IQ tests and other ability test assess only a specific portion of the intelligence, and classical these tests are insufficient to assess the students' multi-skills". And he continued with, "this type of assessment application is invalid for evaluation of achievement on education". In addition, he pointed that the real success does not mean how students achieve their goals, in fact it means finding out the students strong and weak aspects. By this aspect, MI helps educators to educate more creative and initiating students, and explore the potential on concealed skills of students (Gardner, 1983).

Gardner's study about human brain has addressed that human brain has a modular structure and there are many different psychological processes made by symbols referred by numerical, visual, verbal, mimics and other figures. Gardner and Hatch found out that the different portions of brain service different symbols (Gardner & Hatch, 1989).

Consequently Gardner's study has added new intelligence type that called as Multi-Intelligence to old 7 types that has been found before. Intelligences work together according to Gardner and he has given the 8 types of intelligence as follows;

- Verbal intelligence
- Mathematical intelligence
- Visual intelligence
- Musical-Rhythmic intelligence
- Physical-Kinestatic intelligence
- Social intelligence
- Intrinsic intelligence
- Natural intelligence

WEB BASED PROFESSION ORIENTATION

A new web based software has been developed for serving the problems that described in section 2. The reasons of the requirement of developing this type of software can be listed as follows (Doukidis & Whitley, 1988; Kidd, 1987):

- The problems occurred during the observation form filling: In current position, the form which recommended and

published in Journal of Ministry of National Education is not well designed and it is too hard to find and fill its required fields. Therefore, this form usually filled by counselors instead of students haphazardly. In addition, fields' cells placed on the form are not easy visible, and the directions of labels are different, thus it is very hard to read and fill the fields correctly.

- Collecting the forms after their implementation is difficult: Class observation forms are transferred to guidance counselor. Then the counselor must classify the forms with a good organization. This process is usually very hard, because some schools have many students and gathering data from forms requires the counselor to spend much his time.
- Difficulties in calculation of IQ scores: IQ scores of all students must be calculated and evaluated according the current rules. There are 40 questions for each student in the forms and each question has a specific calculation technique and then all question scores must be combined. Therefore scoring the IQ tests cause a big problem to guidance counselors.
- Difficulties in evaluation process of IQ scores: It is not easy to know which calculated IQ scores refer to which profession, and it requires that counselors must have huge amount of knowledge about all professions. Thus in case of classical orientation, the recommendations will be able to be relative and non-realistic.

- Necessity of computers usage: Every Elementary School has at least one computer in our country. Since we are living the technology century, there is a mentality that the computers must be used almost in every area of education.

Orientation instruction appropriated by Ministry of National Education is continuing to be used in Elementary Schools at the fields of profession orientation and advising the students and their parents.

Class Observation Form that is derived according to Orientation Instruction is applied to each student. That form includes 40 questions and 12 different personality components towards determination of students' intelligence fields and characteristics. Although it needs some revisions, it is accepted without any adaptation. Calculation techniques of IQ scores of that form are accepted without adaptations too.

To avoid problems described above a project established and finally a new software has been developed. The main objective of the software is making recommendations about the best profession as much as possible according to students' intelligence fields. Many negotiations and discussions were made with field specialists during all developing stages of the project and the best advising techniques were tried to find out. Finally, good and useful software is developed.

Web based profession orientation software is developed with PHP. Furthermore, MySQL database management system and software is used in this project. The software enables to define new professions and their behaviors.

There is a basic form screen that is used to enter data gathered by questionnaires. Both teachers, students with parents may fill up basic form placed in the software. Then calculated results may be compared and assessed in accordance with coherency. In addition to basic form, there is a screen that shows the intelligence area of students and profession lists covered by that area in both enrolled and visual ways.

In other way, the software can be grouped in 3 sections. In the first section, which serves to teachers, a teacher selects the teacher button. Then an authentication screen appears that asks for user name and password. In the meanwhile each teacher (guidance counselor) has a unique username and password and each teacher can reach and observe only own class data.

When the teacher authentication is completed, automatically a new menu appears on the screen. This menu is used to make a selection of filling new form or observing pre-stored form. If teacher wants to enter a new student's data to system then he presses the fill new button and so on. The guardians and students can use the system, but they can see only their own data of course.

Figure 1 shows the basic orientation form design. In this page, a radio button item on related field must be checked for each question. Questions placed in the form are same for teacher, students and parents. One must be careful while filling the form, because these items will be used to calculate intelligence score. At the same time, all questions must of course be checked without any incorrect and pretext answers.

Consequence of filling basic orientation form, 3 types of paper will be printed both via printer and screen. These papers show the dominant intelligence field of a particular student, professions list that can be oriented and teacher copy of orientation results and recommendations respectively. Similar reports and papers can be printed according to guardian and students aspects in different shape.

Another benefit of the software is that it is available in both internet environment and locally. Thanks to visual design of it and its user interfaces, the software supplies a comfortable environment for teachers, students and parents in order to make their desires. All scores (IQ scores, dominant intelligence scores, etc.) are calculated by the software, so there is no chance to make a fault if the related fields filled correctly. In addition, suitable professions according to intelligence field of the student are also recommended by the software.

Profession Orientation Form

Name : A.G. Max
Class : 8
Id#   : 444

Disclosure
Please, check the appropriate box in accordance with observation on student using scale shown below

4-Excellent   3-Good   2-Avarage   1-Poor   0-None

#q	Please read carefully	4	3	2	1	0
1	S/he has good language skills	○	○	○	○	○
2	S/he can write creative essays	○	○	○	○	○
3	S/he can interpret on a subject, which s/he read	○	○	○	○	○
4	S/he has a good vocabulary	○	○	○	○	○
5	S/he has enthusiasm on reading	○	○	○	○	○
6	S/he loves and understands the nature	○	○	○	○	○
7	S/he desires to get knowledge about environment	○	○	○	○	○
8	S/he can interpret the historical events	○	○	○	○	○
9	S/he likes to read about literature	○	○	○	○	○
10	S/he is sensitive	○	○	○	○	○
11	S/he has good communication skills	○	○	○	○	○

Figure 1. Sample screenshot of profession orientation form

CONCLUSION

In our country, the profession orientation programs for elementary education students have a critical importance. However, in the aspect of profession orientation application, the least dealt population is the elementary school students.

Profession orientation activities affect the counselor to feel themselves under pressure. Therefore, these activities in Elementary Education are usually made haphazardly by the teachers, for this reason, orientation programs are exposed to come into bottleneck.

In the study, current restrictions in front of orientation programs and their solving are investigated. The basic steps of getting a recommendation about profession are as follows;
Firstly, class observing form is filled, then student behaviors' form is filled, next IQ scores is calculated and intelligence field is determined. Finally, a recommendations' form is printed and that can be used for future actions.

As a result, the software calculates the necessary scores, and some interpretations behalf of teachers. Of course, no software can take the human place in the field of education, but we can utilize them to avoid redundant and waste works. And the software may be useful for teachers, students and parents.

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