

## **A SAMPLE FOR GUIDANCE APPLICATION OF DISTANCE EDUCATION TECHNOLOGIES: A Case Study on Graduate Students' Opinions About Web-Assisted Career Guidance Systems**

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### **ABSTRACT**

The purpose of this study was to analyze the use of distance education technologies in career guidance and counseling. Using qualitative research methods, web-assisted systems in career guidance were studied and feedback gained graduate students completing their no-thesis master program in the Program of Psychological Counseling and Guidance in the Institute of Social Sciences at Selcuk University during spring semester in 2007 was analyzed from. Purposeful sampling was administered to collect data from semi-structured interviews with these graduate students. Data were coded using Nvivo2 software and then themes were determined. Based on related literature, findings from this research were discussed and some suggestions were provided.

**Keywords:** Career Guidance Systems, Distance Education, Graduate Students.

### **INTRODUCTION**

The most important factor affecting the career lives of individuals is education. In order to cope with difficulties in life, individuals need to acquire problem-solving, decision-making, critical thinking, and social skills provided by education. However, since current and traditional education offered in schools cannot meet the needs of students adequately, other forms of education emerge. One of the alternative education types in meeting the increasing needs of education is distance education.

*Distance education programs provide three means of support for students: academic support, affective support, and administrative support. Academic support provides students with cognitive and meta-cognitive tools and resources needed for linking student performance to course objectives. Affective support refers to the motivational needs of the students. Administrative support involves assistance with logistical components such as registration, fee payment, and acquisition of course materials (Nakos, Deis, & Jourd, 2002, p. 60). Information technologies like media-based education (i.e., print-based, computer-based or broadcasting-based), electronic mail, Internet (web) system, communication-bulletin systems, information discussion services, computer conferencing systems, telephone and satellites, must be used effectively in order that distance education can be utilized both by a wide range of people and different learning environments (Demiray, 2003; Isman, 2005; Kaya, 2002; Usun, 2006).*

It is stated that infocommunication and data processing technologies in distance education tools are increasingly being used in career guidance and counseling services, and will continue to be used (Sampson, Kollodinsky, & Greno, 1997; Tait, 1999). Besides, counselors have commonly been using computer technologies (i.e., e-mail, web sites, electronic newsletters, on-line counseling journals, [distance learning](#); videoconferencing, on-line high schools, networking) and distance learning environments to meet the guidance needs of counseling individuals (Van Horn & Myrick, 2001).

The United Kingdom and other countries have been using telephone guidance—one of the technologies of distance education—effectively in career guidance for several years (Watts & Dent, 2002). The most important concept here is the unification of career information systems and the Internet-based distance guidance services to meet the professional needs of individuals (Butler, 1978; Sampson, 1999). The Internet should be used commonly both among the counselors and counseled individuals. Counselors (state directors, district directors, and rehabilitation experts) working at their jobs in different regions and positions have been stating that the Internet eases the job of counseling—they can use it in their offices but don't usually have access to it at home (Patterson, 2002).

To sum up, on-line career guidance systems are used at every stage of professional life. Kirk's (2005) study, concerned with on-line resources providing career information and services useful to older workers, proves that the Internet is used by everyone.

Chapman and DiBianco (1996) state how web sites—one of the technologies of distance education—is used by college students for self identity and for career exploration in career guidance. Harris-Bowlsbey (1997), who focuses on infocommunication systems and the Internet, points out that computers are used in guidance and information systems. In addition, the rapid development of career planning services has realized over the Internet.

Sanders and Rosenfield (1998) point out that changes have been seen in distance counseling services and telephone counseling that is sometimes used in therapeutic studies. Chapman and DiBianco (1998) state that by means of web sites, information that is updated and students can easily get access to self-evaluation tests and career information. Computer career guidance—one of the distance education technologies—has been used in counseling services over the past 30 years (Hinkle, 1992; Kirk, 2000).

Among the Computer-Assisted Career Guidance systems, the most well-known systems on the application basis that have been developed worldwide until now are DISCOVER, SIGI, SIGI PLUS, and PROSPECT (Gati, 1990; Gati, 1994; Helwig & Snodgres, 1990; Katz & Shatkin, 1987; Lokan & Fleming, 2003; Sampson, 1997; Sampson, Shahnasarian, & Reardon, 1987; Watts, 1993; Wooler & Lewis, 1982;). Also, BILDEMER (CACG) is the one which is applied in Turkey (Kuzgun & Sözalán, 1996).

Distance education technologies in career guidance are best applied in the web environment. Career Guidance and Career Information Systems need to integrate on-line tools in order to meet career guidance needs of individuals for web-assisted guidance. This integration should include the following characteristics:

- Look at career counseling sites on the Internet.
- Determine clients' career service needs.
- Assess clients' level of computer and Internet literacy.

- Thoroughly survey the services available over the Internet.
- Bookmark high quality career service sites and match the career service needs and computer literacy of clients.
- Organize career service links according to preferred career planning/job search model.
- Place career service links into Web pages in the form of career planning and job-hunting activities.
- Burn Internet pages on a CD-ROM or publish on a Web server.
- Assign specific activities to clients.
- Discuss results of the activities on-line or in person.
- Provide assistance and psychological support to clients as needed.
- Collect feedback from clients on the appropriateness and effectiveness of the various activities.
- Revise activities and services as needed (Kirk, 2000, p. 148).

Distance education systems are also used in career guidance. But the Internet is the method used most in distance education technologies and learning environments. It can effectively be used, especially with computer software programs prepared by experts in web career guidance. Using this framework, the purpose of this study is to analyze how distance education technologies are used with the career guidance systems according to graduates' opinions. To this end, the following questions will be answered:

1. What do you think of the studies conducted on on-line career information systems and web-assisted career guidance applications in Turkey?
2. If guidance and psychological counseling experts want to develop web-assisted career guidance systems, what modules should be involved in these systems?
3. In your opinion, what are the advantages of web-assisted career guidance systems?
4. In your opinion, what are the disadvantages of web-assisted career guidance systems?
5. In terms of ethics, what should be taken into consideration in web-assisted career guidance services?

## **METHODOLOGY**

### **Research Approach**

In this study, the technique of qualitative research is used. This study has the following features: a) an integrative approach, b) flexibility in the research pattern, c) an inductive analysis, d) sensitivity to natural environment, and e) perception provision with researchers with a participatory role (Yıldırım & Şimşek, 2005). Qualitative research especially emphasizes qualitative technical meanings, definitions, and experiences. Most of data will just consist of the words people define and observe (Coolican, 1992).

### **Study Group**

In this research, purposeful sampling is employed. Purposeful sampling methods properly appear in the process of qualitative research. They enable the researcher to study on information-rich cases in depth (Yıldırım & Simsek, 2005). For this sampling, a set of important criteria for selection are determined and the sample selected in accordance with these criteria is thought to represent the population with all its characteristics (Tavsancıl & Aslan, 2001).

In this study, interviews are conducted with the students completing their master's degree without a thesis in the Program of the Psychological Counseling and Guidance, Institute of Social Sciences, Selcuk University during spring semester in 2007. The students attending a course entitled "Professional Application and Counseling." The sample consists of 30 students—16 females and 14 males. Ten of the 30 students are between the ages of 24–26, 12 between the ages of 27–30, between the ages of 31–35, and 3 are 35 years and more.

### **Semi-Structured Interview Technique**

The technique of semi-structured interview was used to collect data for this research and related literature was reviewed. In order to ensure the validity of the semi-structured form, after it was developed, it was distributed to five instructors who completed their doctorates in career guidance and counseling. Based on their comments, a semi structured application form was prepared in accordance with the opinions of these instructors. Next, pilot applications were developed. After some improvements, the interview forms became ready for use. Applications were taken in written form from the 30 students.

Afterwards, they were redistributed to the students in case any student should want to add or omit things. Some of the students made changes. Since giving direct quotations from the individuals and explaining the results in relation to these are important for the research's validity, the data were given directly to the participants to check the reliability (Wolcott, 1990).

### **Data Collection**

The principle of voluntarism was the pre-condition of participating in one-on-one interviews. The aim of the research and how the study would be carried out were clearly stated in the written semi-structured forms. In addition, it was emphasized that the identities of the participants would remain confidential. During the sessions, the written forms were used. These sessions lasted between 30 to 45 minutes.

### **Data Analysis and Interpretation**

The collected data were analyzed via the content-analysis technique. The main process of the content analysis technique was to reach concepts and relations which could explain the data. The fundamental characteristic of the content analysis was to collect and organize similar data in a frame of certain concepts and themes by bringing together those that were related. For this reason, the collected data should first be conceptualized and then organized logically in accordance with the emerging concepts. Finally, themes explaining the data should be determined (Kuş, 2006; Yıldırım & Şimşek, 2005).

Participants wrote down their ideas on the semi-structured forms. Each and every session was numerated from 1-30. Having been conceptualized, words, sentences and paragraphs were coded in order to obtain the idea clearly, while reading the data (Brott & Myers, 2002). Coding was completed within the boundaries of the researcher's goals and interview issues. While coding, researchers benefitted from Nvivo2, a qualitative data analysis program.

Themes and subdimensions were expressed in percentages. Categories were used to analyze various meanings that a lower level category contained (Coolican, 1992). By qualitative research's nature, percentages were used for ordering and reporting opinions.

## FINDINGS AND DISCUSSION

Since the 1960s, on-line computer and web-assisted career guidance systems have been used worldwide. However, the application of such systems began 10 years ago in Turkey with on-line career information systems and continued with computer and web-assisted career guidance systems. Of the 30 students participating in this research, nine of visited the websites concerned with career information systems or web-assisted career guidance systems one time, seven visited two times, six visited three times, two visited four times, two visited five times, one visited seven times, and three visited eight times.

### **Participants' Views about the Applications of Web-Assisted Career Guidance Systems in Turkey**

The career information services do not include guidance and counseling in Turkey. For instance, the following web sites provide the career information systems only:

- <http://www.iskur.gov.tr>
- <http://www.sokrateskpssles.com>
- <http://www.kademe.com.tr>
- <http://yayim.meb.gov.tr>
- <http://www.maximumbilgi.com>
- <http://www.euroguidance.net>

When the responses of the students were analyzed, it was discovered that students had expressed the following categories: (1) such websites included information only about career guidance, (2) studies about the career guidance were insufficient and inefficient, (3) the websites were not appropriate for privacy policies, (4) such sites were able to bring employers and employees together, (5) they were not conducted by experts, and 6) they are within easy and quick reach. Regarding the on-line Career Information Systems and Web-Assisted Career Guidance Systems in Turkey, 29% of the students said that these applications consisted of professional information only. One student wrote,

*Studies about web-based, computer-assisted career guidance applications have only been prepared for giving information. On such sites, one can generally find documents, prepared studies and information about the meaning of career guidance. On the career guidance websites of the universities, prepared studies and conferences could be generally seen. As a matter of fact, I couldn't find any information about the characteristics and requirements of careers. Other than personal characteristics, there is information about the features of careers.*

As mentioned earlier, career information systems that students reach easily consist only of professional information only. In this context, the opinions of the students are parallel to the results of Binbasioğlu's study (2004). In addition, the website—<http://www.sokrateskpssles.com>—can be shown as a model in terms of giving professional information. The results obtained by this research show parallelism with the content of this site. In this site there is information about educational and career guidance. Especially, factors affecting career development are emphasized and information about career guidance is presented. Another similar site is <http://www.kademe.com.tr>. On this site, the answers of such questions can be found:

**“What’s the right profession? How can a successful career be accomplished? What is a career? What is a profession? How can you describe yourself for career selection?”.**

**With regard to the on-line Career Information Systems and Web-Assisted Career Guidance Systems in Turkey, 23.3% of the students pointed out that studies carried out in those applications were insufficient. About this category, one student said, “I don’t think that career guidance applications in our country are effective because one cannot talk about a thorough interaction between the counselor and the counseling person, since there is no face-to-face interview.”**

**Comments emerging from observations made during the interviews showed that career guidance and counseling services require rather comprehensive and professional applications. Students stated that On-line Career Information Systems’ and Web-assisted Career Guidance Systems’ applications were not complex. Yet, unlike PROSPECT, DISCOVER or SIGI PLUS, which performs both career guidance and career counseling, they accomplish just one of the services of career information systems properly (i.e., knowing individuals; giving professional information, Professional guidance, and counseling.) <http://www.maximumbilgi.com> is one of the websites which has expertise in one of these services.**

**It provides information about sentimental learning, institutional career guidance, learning to think, retirement, culture of firm, job rotation and enrichment, layoff, career stages, career workshops, career guidance, career development, career maps, and career concepts. Morgan et al. (1996) developed a programme to contribute to students’ career development in the USA, since they also saw the studies were insufficient.**

**Regarding the On-line Career Information Systems’ and Web-Assisted Career Guidance Systems’ applications in Turkey, 13.3% of the students pointed out that such applications only aimed for information from the applicant. Regarding this category, one of the students said, “I could not reach a comprehensive study. In certain sites there is some information about profession, but just a limited number of careers have been handled. Features of the careers can also be seen. In just one site called ‘career guidance centre,’ there are various types of individual reports. But, I couldn’t examine the reports as it asks for a fee to reach and examine these reports.”**

**One of the information-based sites is <http://yayim.meb.gov.tr>. In this site, Ültanır’s study (2005) stated, “In terms of Career Guidance and Counseling Services in Turkey and Federal Germany,” this web site presents satisfactory information about on-line career guidance by focusing on career counseling and the concept of career and providing examples about Federal Germany. Regarding the On-line Career Information Systems’ and Web-Assisted Career Guidance Systems’ applications in Turkey, 13.3% of the students pointed out that such websites don’t comply with privacy policies. One of the students commented, “There are lots of studies about this subject on the Internet.**

**I visited such sites five or six times and went over their content. In my opinion, the greatest advantage of such studies, while thinking about a career, is they provide advancement and information by answering such questions:**

- **How can one collect data?**
- **What things should be taken into consideration?**
- **What should be done?”**

There are a few career guidance and information system websites complying with privacy policies. One such site, which complies with privacy policies [<http://www.euroguidance.net>], provides a passworded access system and studies on career guidance field. This site provides individuals and institutions with career guidance services and free membership.

Concerning the On-line Career Information Systems' and Web-Assisted Career Guidance Systems' applications in Turkey, 6.6% of the students stated that on-line career information systems and web-assisted career guidance systems in Turkey bring employees and employers together. One of the students said, "I observed that although there are apparently lots of on-line (i.e., web-based and computer-assisted career guidance) systems, most of them serve as job-search sites." Bruce's (2004) statement that the expansion of the Internet—one of the distance education technologies—offered lots of opportunities to African college students living in the USA and those looking for active or passive employment benefitted from it, supports this finding of the research.

Latif's statement (1997) about the importance of giving information concerned with the job and the candidate in the job advertisements also shows a noteworthy parallelism with the findings of this study. Latif states that the common tendency between those looking for a job and those who are willing to change their jobs is to respond to lots of job ads quickly and to increase their job opportunities. The best way to reach job advertisements is on-line sites. One of these sites is <http://www.iskur.gov.tr>, the site of the General Directorate of Turkish Employment Organisation.

Regarding On-line Career Information Systems' and Web-Assisted Career Guidance Systems' applications in Turkey, 6.6% of the students stated that such applications were not conducted by experts. One of the students stated, "If such systems are conducted by conscientious people, then computers will be very useful for frequent users."

Gati (1994) mentioned that the database of the CAGC system hasn't been set up successfully, there was no decision-making process, and an effective computerized dialogue has yet to be developed; thus, he regarded them as dead ends in the system. His statement about the indispensability of career counseling to prevent such negativities supports this finding of the research. Nevertheless, Zunker's (1989) statement that insufficient preparations make individuals anxious, also contributes to the finding of this study. Harris-Bowlsbey (2003) summarizes the characteristics of career guidance systems as information on several methods of intervention, such as group counseling and interactive computer-based systems and specializations in career development. This also has a parallelism with the findings of this research.

With regard to On-line Career Information Systems' and Web-Assisted Career Guidance Systems' applications in Turkey, 6.6% of the students stated that such applications were within quick and easy reach. One of the students said, "Despite their deficiencies, they are quite advantageous. Because they are within easy reach, one can catch up on new developments."

Bowlsbey and Sampson (2005) point out that as the cost of computer hardware decreases, its software capacity increases, which supports this finding of this study, too.

### **If a Web-Assisted Career Guidance System is Developed, What Modules should this System Involve?**

If Psychological Counseling and Guidance experts develop a Web-Assisted Career Guidance System, there should be three categories for the modules which will be involved in this system: 1) techniques for knowing individuals, 2) professional information, and 3) the compromise of personal characteristics and careers. When developing a Web-Assisted Career Guidance System by Psychological Counseling and Guidance experts, 46.6% of the students stated, there should be a module with professional information included. One of the students noted, "Such systems should involve detailed personal information like identity data, educational background, field of interest, hobbies, attended courses and reasons, family information, marital status, having a child or not, ideals, preferences, realities."

Yeşilyaprak (2003) listed all the details to be known about a career and her emphasis on professional information in career selection supports this finding of the research. Borg's statement (1996) that age, sex, personal characteristics, family and contemporaries are all effective in the process of career selection also has a parallelism with this finding of this study. Külahoğlu (2001) handled Gottfredson's theory of career compromise integratively and concluded that individual information searches are in the same direction with the career they want to choose. However, the view held is that in case they cannot obtain enough information, their searches should expand and continue. This view also has a parallelism with this finding. Another parallelism can be found in Borg's statement (1996), in the process of study's career selection, if individuals reach professional information easily, it affects working conditions and job demands.

Students (33.3%) stated that if Psychological Counseling and Guidance experts develop a Web-Assisted Career Guidance System, there should also be subjects about techniques for recognizing individuals.

One of the students wrote, "Such systems should involve detailed personal information like identity data, educational background, field of interest, hobbies, attended courses and reasons, family information, marital status, having a child or not, ideals, preferences, realities." Wall's statement (1994) that individual's aptitude, interests and values are really important in career development supports this research's finding (Blustein, 1993).

Hodkinson and Spark's (1993) statement that young people need to increase their available information and reach more information about themselves in order to obtain more logical and functional information about professions also supports this study's finding.

Studd's statement (1997) that in order to meet the needs of the individuals who are in the process of career planning by means of professional guidance, career services should counsel individuals by providing them with tests indicating their fields of interest, abilities, and successes. In addition, they should help the individuals know themselves better by making them classify professional values, define articulations, and analyze life scripts supports, which supports the findings of this study.

Twenty percent of the students stated that if Psychological Counseling and Guidance experts develop a Web-Assisted Career Guidance System, there should be a module on compromise of personal characteristics and careers.

One of the students said, "There should be enough information about careers and tests which can bring out the individuals' fields of interest, abilities, and values. In accordance with test results, needed guidance should be provided and there should be enough information about the guided career."

O'Halloran et al.'s (2002) suggestion that a website should be designed in three categories (world-of-work information, assessment, and employment opportunities) supports the findings of this research. Hesketh and McLahlan (1991) suggest those graduating from the schools of banking should:

- search for realistic information about career compromise or career conformity
  - use their abilities effectively
  - obtain education to promote their skills
  - find mentors
  - receive feedback
  - participate in projects voluntarily
- This suggestion also supports this finding of the study.

Studd (1997) and (Gati, 1993) stated a similar finding that career guidance services can establish a relationship between the features of the careers and individuals' characteristics. In short, Gati, Houminer, and Fassa (1997) emphasize three fundamental processes of career comprise:

1. creating career alternatives,
2. listing different dimensions of these alternatives according to their importance, and
3. career decision-making.

### **Advantages of Web-assisted Career Guidance Systems**

There are four categories about the advantages of Web-Assisted Career Guidance Systems: quick and easy access, practical application, comprehensive analysis, and short feedback.

Forty percent of the students found the system advantageous in terms of its quick and easy access. One of the students said: "Easy accessibility provides low anxiety, practical application, and privacy." Sampson's (1994) statement that improvement of hardware and software—which are the means of Computer-Assisted Career Guidance Systems—provides easy access and practicality, has a parallelism with the findings of the research. Similarly, Crimando and Bordieri's (1991) statement, that techniques for knowing students' ease to reach scores of the tests, affirms this finding of the research.

Approximately 26,6% of the students found the system advantageous in terms of its comprehensive analysis. One of the students stated, "We can get information about fields of interest, abilities, and values and we can evaluate ourselves. It provides career exploration and quick decision-making. Individuals obtain more information, provided that the feedback process prevents loss of time. As a result, individuals find more opportunities to ask questions."

Osborn et al. (2003) state that CACG systems provide counseling individuals with decision-making, problem-solving, career options, and information about individuals and careers, which supports this finding of this study.

Similarly, Zunker (1989) states that CACG offers lots of opportunities to individuals for career exploration and its systematization of decision-making makes it more advantageous. Usun (2004) also points out that one of the advantages of education technology is to reach more information.

Twenty percent of the students found the system advantageous in terms of its practical application. One of the students noted, "One can respond comfortably, as there is no face-to-face interaction with the counselor and also reach the results of the studies quickly. Updates are faster and various career fields can be found on the Web." Offer and Sampson's (1999) statement that the Internet makes users gain practicality as it establishes links between the Career Information Systems and some other useful career software supports the findings of the research. Approximately 13.3% of the students found the system advantageous, since it provides short feedback. One of the students said, "Feedback is given in a short time and one can easily reach the required information." Zunker (1989) states that CACG is advantageous because it provides immediate feedback. Crimando and Bordieri (1991) mention that tests about career selection are immediately evaluated by the system. It is seen that both of these statements support this finding of the study. However, Sampson (1994) points out that CACG is advantageous, as it provides its users with feedback and communication.

### **Disadvantages of Web-assisted Career Guidance Systems**

There are five categories regarding the disadvantages of Web-Assisted Career Guidance Systems:

- interviews are not face-to-face
- unreliable
- software is expensive
- system infrastructure is insufficient
- insufficient knowledge of the users

Approximately 36,6% of the students found the system disadvantageous, since the interviews are not face-to-face. One of the students said, "Interview between a counselor and an individual cannot be so effective, as in face-to-face interview. As a result of informing the counselor wrongly, there will be wrong guidance."

Literature supports this finding of the study statement that the use of information and communication technologies will mechanize, decrease, and change human relations (Sampson, 2000; Tait, 1999) since the results of the test offer general information about individuals, interviews should be face-to-face. On the contrary, in the study by Jones et al. (2002) about the efficiency of Web-assisted test interpretation, they found there existed no significant difference among the on-line test chat interpretations, on-line test chat video interpretations, and traditional (face-to-face) interpretations, but they determined that on-line test chat video interpretations and traditional (face-to-face) interpretations were more effective than on-line test chat interpretations.

Approximately 23.7% of the students found the system disadvantageous in terms of its unreliability. One of the students stated, "One cannot be sure about the validity and reliability of entered information and received information." Zunker (1989) states that unreliability of CACG is one of its disadvantages.

However, this can be prevented if individuals enter a password to access the database. Likewise, Gati (1994) regarded inaccurate and erroneous information as the dead end of the system.

Sampson, Kollodinsky, and Greno (1997) stated that the low cost of hardware and software made CACG more practical. As a result, all of these statements have parallelism with the findings of this research.

Approximately 23.7% of the students found the system disadvantageous in terms of its high cost. One of the students said, "Expensive software, unreliable information (inappropriate privacy policies), insufficient career information and preparation make individuals uneasy." Sampson (1994) emphasized that some private institutions and schools rent software because they are expensive. Moreover, while the the cost of hardware has decreased, the cost of software has increased in recent years since more people are needed to develop the software. Harris-Bowlsbey and Sampson (2005) state that while the cost of hardware has decreased, the cost and capacity of software have increased. As a result, clearly both of these statements support this finding of the study.

Ten percent of the students found the system disadvantageous in terms of its insufficient infrastructure. One of the students noted, "Planning without enough preparation is their disadvantage." Sampson (1994) focused on the disadvantages of the system by stating that planning CACG insufficiently cannot meet the needs of individuals—as a consequence, ineffective results will be obtained. Dowsey (1978) pointed out that the use of computers in career guidance will be very common, since they will produce the effort required to collect, update, and maintain the occupational database, which supports this finding of the study.

Approximately 6.6% of the students found the system disadvantageous, since it is impossible to know the users thoroughly. For example, one of the students, "It is insufficient to show personal characteristics and abilities. For instance, there is no way of assessing handiwork; whereas, one's mechanic's skills can be simply determined by his way of holding a screwdriver or a hammer."

Zunker (1989) stated that CACG was not the only source in career guidance, it was just an aid. If individuals need more information, they should see career counselors.

***What should Psychological Counseling and Guidance Experts Pay Attention to ethically in Web-Assisted Career Guidance Systems?***

There are five categories regarding that Psychological Counseling and Guidance Experts should pay attention to ethically in Web-Assisted Career Guidance Systems:

- confidentiality
- reliability of information
- objectivity
- password access
- guidance by experts.

Approximately 46.6% of the students stated that Psychological Counseling and Guidance Experts needed to pay attention to confidentiality ethically in Web-Assisted Career Guidance Systems.

One of the students, "Privacy policies should be in the foreground". Another student said, "Personal matters shouldn't be shared with the third parties."

Zunker (1989) suggested that privacy was a great anxiety, and in order to eliminate

this anxiety, access to such sites should be with passwords. Twenty percent of the students stated that Psychological Counseling and Guidance Experts needed to pay attention to the reliability of the information ethically in Web-Assisted Career Guidance Systems. One of the students said, "Security and secrecy of the personal data should be guaranteed. That's why steps towards password implementation are being taken in Turkey. Some foreign websites asks for both password and a secret question."

Gati (1994) regarded wrong and erroneous information as the dead end of the system and stated the need that information should be thoroughly prepared by the experts. Similarly, O'Halloran and Keller's (2002) statement, that the first and foremost feature to be looked for in a website was the reliability of its information, supported this finding of study. Approximately 13.3% of the students stated that Psychological Counseling and Guidance Experts should ethically provide objectivity in Web-Assisted Career Guidance Systems. One of the students noted, "There should be objective evaluation rules and no discrimination among the individuals." Offer and Sampson's (1999) made the statement that data used in guidance must be reliable and valid, and there should be no contradiction between the professional and current data. Crimando and Bordieri's (1991) opinion that tests used in CACG should have psychometric features, also has a parallelism with this finding of the research.

Ten percent of the students stated that Psychological Counseling and Guidance Experts should ethically provide its users with passworded access in Web-Assisted Career Guidance Systems. One of the students said, "For the security of personal data, passworded access should be developed." Sampson's (2000) statement, if counseling individuals gain access to the system with passwords freely, it will ease counselors' jobs, showed similarity with the finding of this research. Ten percent of the students stated that Psychological Counseling and Guidance Experts should ethically serve in Web-Assisted Career Guidance Systems. One of the students said, "Those who are not expert in this field shouldn't serve." Sampson (2000) focused on such standards: the choice of tests to be applied to the individuals, how these individuals should be guided, and the scoring and comments of these tests. He stated that those who test the individuals should be experts and establish a good relationship with those taking the tests. Akpınar (1999) also supported this finding in terms of Keller's (1988) statement, software should not only be expert at educational strategy and content design, but it should also be expert at motivational subjects. Muchinsky (1990) focused on the ethicality of psychological tests and his statement that APA rules should be involved in them for ethic standards contributes to the findings of this research.

In short, Harvey and Carlson's (2003) statement that school psychologists have an ethical imperative to determine the ways which computers can facilitate practice, thanks to their potential to improve effectiveness and efficiency, and psychologists, also have a parallel imperative to consider ethical and professional practice implications carefully, supports the findings of this research.

## **CONCLUDING REMARKS ABOUT WEB-ASSISTED CAREER GUIDANCE SYSTEMS**

Career selection concerns everyone. It is such an important progressive process that it appears to be cyclical: it is repeated whenever an individual needs or chooses to make a new career choice or plan. Although the level of detail and awareness of the process vary substantially from an adolescent making a first career choice to a middle-aged or older adult making a complex career transition, the basic elements of the process are the same (Harris-Bowlsbey, 1995).

**In order to systemize the career selection process, it is essential to build the web-assisted guidance systems with a capacity to meet everyone's needs.**

**On-line Career Information Systems and Web-Assisted Career Guidance Systems' applications consist of professional data and Web-Assisted Career Guidance Systems' applications involve career information that make them insufficient and inefficient for career counseling in Turkey.**

**Since a majority of the administrators of on-line career information systems and web-assisted career guidance systems do not ask for password or fee for access to the sites where they bring the employers and those looking for a job, these efforts divert the Web-Assisted Career Guidance Systems from their goals.**

**These findings suggest the effective use of distance education tools in career guidance and counseling.**

**Psychological Counseling and Guidance Experts state that if they involve WACG systems in their studies, this will enable the system to know individuals and careers thoroughly, and construct professional compromise modules, which will respond efficiently to the needs of the individuals (Ültanır, 2005).**

**There are both advantages and disadvantages of the web-assisted career guidance systems. They provide counseling individuals with quick reach, comprehensive analysis, and feedback as their greatest advantages. However, these can be seen as disadvantages of these systems: Counseling individuals who use Web-Assisted Career Guidance Systems do not have face-to-face interaction with the counselor. In sum;**

- **The system cannot update personal data.**
- **Data entry to the system is not reviewed by experts.**
- **Software for these systems is expensive.**

**Administrators of Web-Assisted Career Guidance Systems should ethically guarantee the confidentiality of identity data of the counseled individuals and private information about the counseling process. They should get "access to the site" under control. In addition, reliability and objectivity of the data should be ensured by the experts.**

## **RECOMMENDATIONS**

**The following can be recommended in the light of the findings obtained from this study:**

- **In the Web-Assisted Career Guidance (WACG) systems, if experts provide not only career information but also career guidance, they can respond to more individuals' needs.**
- **In the WACG systems, counseled individuals' personal data should be kept confidential.**
- **If a new WACG system is developed, there should be students' personal characteristics, which could have a great effect on career selection, professional characteristics. More importantly there should be modules providing the compromise of these characteristics. Especially, every module should be structured systematically.**
- **It would be more advantageous to develop a WACG system in which all types of information about career selection can be found by students.**

- If those who are experts at knowing individuals test comments, WACG systems, and pay attention to privacy policies control the system, such sites would be more advantageous.
- Administrators of WACG systems can improve their ethic standards by providing password access, objectivity, employing individuals, who are expert in their fields, and abide by privacy policies. So this requires administrators to have knowledge about distance education tools and applications.

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