

## CREATING AN E-LEARNING ENVIRONMENT BY USING CONSTRUCTIVIST THEORY FOR POLICE MANAGEMENT TRAINING COURSES IN THE TURKISH NATIONAL POLICE

### Türk Polis Teşkilatında Polis Yöneticilerinin Eğitimi İçin Konstruktivist Teori Kullanılarak Uzaktan Eğitim Sistemi Oluşturulması

Selçuk ZENGİN\*

#### Özet

Bu çalışma orta ve üst seviye polis yöneticileri için internet üzerinden video konferans formatında hazırlanan kurslar hakkında polis yöneticilerinin görüşlerinin analizini yapmakta ve bu kursların nasıl geliştirileceği hususunda fikirleri paylaşmaktadır. Polis yöneticileri için düzenlenen bu kurslara katılan kursiyerler, atış ve polis savunma taktikleri gibi temel polislik eğitimini tamamlamış olduklarından, yüz-yüze eğitim gerektirecek dersler bu eğitimlerde planlanmamaktadır.

Emniyet Teşkilatı, merkezi yönetim anlayışının bir gereği olarak, gerek yurt içinde, gerekse değişik amaçlarla (BM, AGİT, AB, misyon koruma vb.) yurt dışında elliden fazla ülkede görev yapan personelinin üst rütbeye terfi sınavlarını 2006 yılına kadar bütün aşamaları ile Ankara'da bir merkezde yapmakta idi. Bu da kursiyerlerin Ankara'ya seyahat edip, bu süreci görev ve ikamet yerlerinden uzakta geçirmelerini mecbur kılmakta idi. Yeni sistemde ise kursun başı ve sonunda yapılan sınavlar Ankara'da olmak kaydıyla, kurs müfredatının internet kanalıyla uzaktan takibi imkânı getirilmiştir.

Bu yeni sistemin kullanılmasından sonra uygulanan yeni teknolojinin başarı seviyesini ölçmek amacıyla Güvenlik Bilimleri Enstitüsü tarafından bir anket çalışması düzenlenmiştir. Bu araştırmada yeni sistemin zayıf yönlerini tartışmak amacıyla ikincil (secondary) data analizi kullanılmaktadır. Polis yöneticileri için düzenlenecek olan internet üzerinden sunulan (online, e-learning) kurslarının kalite ve verimliliğini artırabilmek için bazı önerilerde bulunmaktadır.

\* Dr., 4. Sınıf Emniyet Müdürü, Erzurum PMYO, selcukzengin@hotmail.com.  
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**Anahtar Kelimeler:** Polis, E-öğrenme, Yapısal Teori, Eğitim, Web-Tabanlı Öğrenme.

### **Abstract**

This study aims to investigate the perceptions of police supervisors concerning internet-based video conferencing training (IVCT) environment for the police management courses designed for mid- and high-level police supervisors of the Turkish National Police (TNP), and how to improve it. Police supervisors have already had basic police training, such as shooting and self-defense; face-to-face interaction is not necessary for the theoretical police management training courses.

The TNP is a very centralized system which required all personnel taking promotion exams to travel to Ankara, the capital of Turkey, for training. TNP personnel are deployed in 81 Turkish cities and in more than 50 countries. Many supervisors are working with international organizations such as the United Nations (UN), the Organization for Security and Co-operation in Europe (OSCE), and the European Union (EU). Currently, police supervisors must come to Ankara to attend the police management training course to get promoted to a higher rank.

The Security Sciences Institute (SSI) is the governmental unit responsible for providing the police management training courses. Face-to-face courses have always been used but in April 2005, an IVCT system attempted. At the end of the IVCT, SSI conducted a survey among participants to find out how successful the attempt was. Secondary data collected during the survey will be used for analysis in this proposed research, in addition to an analysis of the weaknesses in the existing system. Recommendations will be made to use more advanced e-learning courses for police supervisors.

**Key Words:** Police, E-learning, Constructivist Theory, Training, Web-based Learning.

### **Introduction**

Training of police management traditionally has been carried out in a face-to-face format. With the development of computer-based information technologies (IT), new forms of training techniques have been introduced. Previous studies have examined the effectiveness of e-learning over face-to-face training, but police professionals were not included in the study group. The purpose of the present study is to evaluate synchronous internet-based video conferencing training (IVCT)

system for a police management training course, and to explore the possible benefits of using synchronous and asynchronous e-learning for the police management training course in used in the Turkish National Police. In this study, the problem statement, research questions and literature review will be presented first. In literature review, definitions of important research concepts, and discussion of theoretical background of the research will be presented. The second section of the study describes the methodology, data analysis, findings, and conclusion.

## **1. Problem Statement**

To obtain a better understanding of the problem, the organizational structure of the Turkish National Police (TNP) is briefly examined. The TNP is a strongly centralized system. The main headquarters is in Ankara, the capital of Turkey, which is also where the General Director of Security, the head of the police organization, is based. All other regional police headquarters are directed by main headquarters. There are 81 cities, each of which is headed by four-star police chiefs appointed by the General Director of Security. The TNP has slightly more than 180,000 members, spread all over the country; creating a big and powerful police service (Durmaz, 2007).

The centralized nature of the police system naturally affects the education and training system in the TNP. Police education and training institutions of the TNP are as follows:

Turkish National Police Academy (TNPA) is the primary institution to provide basic police training. TNPA is an accredited university and a member of the Turkish Board of Higher Education (Yüksek Öğretim Kurumu). The Academy is composed of three main parts: College of Security Sciences (Güvenlik Bilimleri Fakültesi), The Institute of Security Sciences (Güvenlik Bilimleri Enstitüsü), and the Directorate of Police Vocational Schools of Higher Education (Polis Meslek Yüksek Okulları). There are 23 Police Vocational Schools of Higher Education in different regions of the country as part of the TNPA. These schools provide two-year associate degree for non-ranking officers. The graduates of these schools enter police profession as police constables (non-ranking officers) (Doğuş vd., 2007: 8, 9).

In the TNP, training has two main components: Pre-service and in-service. Pre-service training provides theoretical background about the concept of policing for cadets, before they join the TNP as a professional;

in-service training programs are organized by the TNP Department of Education for existing police officers. Both types are designed to provide updated information to the trainees about contemporary policing, as well as introduce new concepts related to recent changes in policing.

The Security Sciences Institute provides higher level management training for third degree chief superintendents who have passed the promotion examination for security services class personnel, as well as in-service mid-level management training for chief inspectors (Turkish National Police Academy, 2005). In April 2005, the internet-based video conferencing training (IVCT) system was used as a police management training course, but this training system was found ineffective by the participants of the management course, in terms of course access and efficiency. The survey results show that 46% of respondents could not access the course, while 85% reported not being able to ask instructors questions during the course. In this study, the current police management training system will be examined in terms of costs and benefits.

As mentioned above, only those officers who have passed the initial qualification examination are permitted to attend management training courses. To be promoted, police supervisors must complete the courses successfully and pass the final exam. Under the existing system, police supervisors must come to Ankara twice, first to take promotion exam and second for final exam. Each year, approximately 1,000 police executives attend the courses in Ankara, which results in economic and social problems. The economic costs of a centralized course procedure include lost hours of production (approximately 160,000 hours), as well as travel and lodging costs (approximately \$1.1 million); social costs include adaptation problems before leaving the post and after returning to the job, and the emotional burden of leaving their family alone during the course of study. Another problem is the disruption of work schedules when supervisors must redistribute staff duties during their absence.

Previously, all police supervisors in each of the 81 cities had to attend the courses to promote to the higher rank; because of the centralized system, they must travel to one location, the Security Sciences Institute at the Police Academy in Ankara. This requires a considerable time of absence (around two weeks) from the workplace. In this system, officers were required to travel to the particular training facility, take the initial qualification exam, attend the in-class courses, and take the post-test for promotion. In the current IVCT system, officers can remotely follow the in-class sessions over the internet. They only need to travel to the specific training center for the initial and the final exam.

In addition to the problems associated for officers within Turkey, Turkish police officers are also found in many different countries. For example, Turkey is the second country (after the US) sending police units to support peace keeping efforts within United Nations organizations all over the world. Turkey sends many of its police officers and supervisors to international locations, in support of other international organizations such as United Nations (UN), Organization for Security and Co-operation in Europe (OSCE), and European Union (EU). Turkish police supervisors working within the international missions also need to leave their assigned post to attend the courses in Ankara.

In the last decade, e-learning has been used increasingly all over the world by many governmental and private organizations. Moreover, web-based instruction technologies are being used as a new approach in distance training. Technological improvements in education have certainly created a positive impact on learning and teaching (Oblinger and Rush, 1998). E-Learning technologies may be used for police supervisors' training as a solution to the problems under the existing system. Many private and governmental companies are providing Web-based training to customers, users, and students. Well-known, traditional universities such as Duke, Massachusetts Institute of Technology, New York University, and Georgia Tech, have e-learning courses (Schroede, 1999). The US Federal Bureau of Investigation (FBI) has created LEO (law enforcement on-line) system. "LEO is a national interactive computer communications system and information service, an intranet exclusively for the law enforcement community. LEO is also used as a vehicle to educate officers on the best technologies and practices in all areas of law enforcement" (LEO, 2005). The FBI Training Network (FBITN) provides e-learning environments for FBI members and officers from other police agencies. Colorado Technical University and the School of Criminal Justice at Michigan State University have on-line education programs for Master of Science degree. In Turkey, TNP has an intranet system called POLNET that is a national computer communications system and information service similar to LEO. POLNET has connections among all police departments, as well as to the main headquarters, and acts as an information sharing system between all police departments. Currently POLNET is not used for police training, but it could be used for police supervisor and in-service training. Additionally, TNP has information technology (IT) department and computer programmers and experts, whose experience and knowledge can be used to create an e-learning environment. This study explores

whether e-learning can be used for police supervisors training more effectively instead of the existing training system.

## 2. Research Questions

- Does an e-learning which includes synchronous and asynchronous learning offer an effective learning environment for police management training course in TNP?
- How does the e-learning (synchronous and asynchronous) effect in terms of costs and benefits?

## 3. Literature Review

### 3.1. E-Learning

In the last decade, e-learning has been used increasingly all over the world by many governmental and private organizations. Moreover, web-based instruction technologies are being used as a new approach in distance training. A short search using common internet search engines results in thousands of programs, services, and publications about distance education. In addition to the phrase “distance learning,” in the last decade terminology for this technology has grown to include phrases such as: Web-based learning, web-based instruction, interactive learning, tele-learning, intelligent computer instruction, on-line learning, e-learning, new educational environment, adaptive training system, and technology-enhanced learning. To prevent confusion, it is important to define the terms used in for this research.

*Web-based training* is synonymous with web-based learning, web-based instruction and on-line training. web-based training is defined as a learning style that delivers learning materials and the learning experience completely or partly through the internet or an intranet (Trombley and Lee, 2002).

*E-Learning* is defined as delivering learning materials and experiences using technology, such as internet, intranets, CD-ROMs and satellite-transmitted video (Schafter, 2001). E-Learning has the same meaning as technology-based learning. Another definition of e-learning is “any learning, training, or education that is facilitated by the use of well-known and proven computer technologies, specifically networks based on

internet technology” (Fallon and Brown, 2003:4). Rosenberg (2001:28-29) states that there are three principles for e-learning:

1. E-Learning is networked, which makes it capable of instant updating, storage/retrieval, distribution and sharing of instruction or information.
2. It is delivered to the end-user via a computer using standard internet technology.
3. It focuses on the broadest view of learning-learning solutions that go beyond the traditional paradigms of trainings.

Web-based courses are being offered by not only by developed western countries and regions, but also other regions and countries like India, Sri Lanka, Africa, and South America. For instance, web-based courses in engineering and business are being offered by some universities in India (Aggarwal and Bento, 2000). Instead of face-to-face courses, more web-based courses are being offered today because advances in telecommunications and information technology (e.g., audio, video, and high-speed internet connections) enable users to communicate in groups, and choose to chat synchronously and/or asynchronously. According to Van Dam (2004), e-learning started to gain interest in 1995, and it spread very fast until 2000. He notes that period of 2000-2002 were have been referred to as the stagnation term, because of the world-wide economic recession resulted in almost no growth. However, after 2002, e-learning started to be used more commonly by governmental and private organizations. Nevertheless, all these should not be interpreted as e-learning is a flawless way of education or it is superior to the traditional methods of education as it may come with its own deficiencies. Lack of personal rapport between trainer and trainee, possible technical outages, or lack of group motivation could be mentioned among the examples. Therefore, this study mainly focuses on how the TNP best utilize from web-based training methods.

### ***3.2. E-Learning Styles***

It is difficult to get the instructor and the learners at a determined time; therefore, three styles of e-learning are used. The first e-learning style is *synchronous* e-learning, which provides interaction between the learners and the instructors at a specified time over the internet. Because everyone is using the same time interval, students can communicate with their

instructors and the other students (Waggoner and Christenberry, 1997; Broadbent, 2002: 9; Henderson, 2003: 130).

The second e-learning style is *self-directed* learning. Students work through course content materials by themselves independently, without time constraints. Self-directed learning does not provide the interaction between students and the other students; instead, students teach themselves. Because there is no schedule, learning is available whenever the student wants it (Henderson, 2003: 133-134).

The last e-learning style is *asynchronous* or *collaborative* learning, which blends the first two e-learning styles. The students can interact with the instructor and other students by using e-mail and posting their messages in discussion webs, and can exchange their electronic documents. However, in this e-learning style, students do not need to be on-line at the same time. Students can share their ideas while they are working; and if they have questions, students can ask by sending e-mail or postings to the instructors or the other students (Waggoner and Christenberry, 1997; Henderson, 2003: 130-131).

### ***3.3. E-Learning Interface Design and Operation***

A learning environment designer must consider effective design techniques, goals, backgrounds of instructors and students, content requirements and technical limitations. Effective e-learning courses should provide some type of interaction between instructors and students. According to Garrison (1990), a successful e-learning system should not insulate students from available resources. Learners post their project and ideas, contributing to the artifact base; these contributions can be used for the next group of learners. Instruction designers should put assessments in class instructions to receive feedback about immediate learning needs, and send learners information about their progress (Wilson, 2004). E-Learning course designers should use multimedia programs and images to attract the students.

### ***3.4. Training***

To maintain successful e-learning, students, staff, and faculty should be trained on e-learning technologies, how to operate the web, and how to develop web-based design and instruction. In many organizations, 70% of



the technology budget is allocated for planning projects and training users (Stuart, 1998).

### ***3.5. The Advantages of E-Learning***

E-Learning has many advantages for students, instructors, parents, and educational administrators and policy makers. Technological improvements in education have had a positive impact on learning and teaching (Oblinger and Rush, 1998). Thanks to educational technology, life-long training becomes more possible and acceptable (Porter, 1997). The extant research base emphasizes the advantages that e-learning offers compared to more traditional learning contexts such as face-to-face learning. Students have more opportunity to obtain education from e-learning because of the flexibility and accessibility. In e-learning, the instructor can use audio or video clips, textbook supplements, and on-line periodicals to improve the course content (Motamedi, 2001; Waterhouse, 2005: 11-12, 142). The e-learning environment supports students by increasing their writing skills; to communicate with instructors and other students, they must write to discuss issues with each other, as well as receive feedback from instructors and classmates (Barrett, 1995).

Instructors have also advantages by using e-learning as they can monitor their students and communicate with them. Instructors can create an effective and immediate responsive communication with their students. E-Learning environment provides an opportunity to invite academicians, practitioner, and experts as guest speakers from anywhere, thus adding a broad view to courses (Thornbory, 2003; Waterhouse, 2005:16). One of the most important advantages is lowering cost; although e-learning requires a big budget and IT infrastructure, it is one of the most cost-effective methods in training when considering all forms of educational expenses. Because e-learning minimizes or lessens travel expanses and housing costs, classroom infrastructure requirement removes or sharply decreases. When e-learning environments are designed, courses can be accessed by 2 or 20,000 learners. It is really easy to change and revise course contents and materials on a daily/hourly bases, as a response to student input (Killion, 2000; Motamedi, 2001; Randell, 2001; Rosenberg, 2001:30; Flowers and Cotton, 2003; Thornbory, 2003; Munro and Rice-Munro, 2004).

### ***3.6. The Disadvantages of E-learning***

Galusha (2000) presented a comprehensive synthesis of the available literature on problems with distance education. She organized them in five categories; “student demographics”, “student barriers to distance learning”, “faculty barriers in distance learning”, “organizational barriers in distance learning”, and “course consideration.” She asserted that distance learning is “an excellent method of reaching the adult learner”, before discussing barriers to learning in distance education. At the beginning of the 21st century, distance learning technology was very new, and naturally had many technical obstacles.

Galusha provided many examples from the literature and described these barriers in different categories such as, “costs and motivators, feedback and teacher contact, student support and services, alienation and isolation, lack of experience, and training” (2000:4). Earlier studies showed that these barriers contributed to a higher distance-student dropout rate than that of traditional students. And although technological improvements have been made, some of these barriers still exist. Nonetheless, these barriers should become less and less problematic as technology continues to overcome them.

### **4.E-Learning and Constructivist Theory**

Constructivism is the worldview that recognizes learning as the process of constructing meaning about, or making sense of, our experiences (Vygotsky, 1978). Constructivist activities help learners develop critical thinking skills by working collaboratively with others. Constructivist activities include small-group discussions, simulation games, project-based work, and collaborative problem-solving activities.

Constructivism involves the following constructs: Collaborative learning, community, project-based learning, e-learning, and transactional distance.

- Collaborative learning is an instructional method in which small groups of learners work together to accomplish shared goals (Slavin, 1992).
- Community exists when its members experience a sense of belonging or personal relatedness. Communities of learners are social organizations in which knowledge, values, identities, and goals are shared and have mechanisms for sharing what is

learned. Learners must participate fully in the socially situated practices of a community to become part of a community of practice (Lave and Wenger, 1991).

- Project-based learning provides opportunities for working collaboratively over an extended period of time to solve an authentic and challenging problem that results in an end product (Collis, 1997). Project-based learning is typically learner-centered, encourages student initiative, self-directedness, inventiveness, independence and maintained by a teacher who acts as a facilitator and mentor.
- E-Learning is learning from hyper-materials and communicating with instructor and other learners (Khan, 1997).
- Transactional distance refers to the psychological and communications space that takes place between the structure of instructional programs and the dialogue among instructor and learners (Moore, 1993).

Constructivist learning environments situate learning in coherent, meaningful, and purposeful activities (Brown et al., 1989). Currently, constructivist theory is accepted as the most reliable and common model of learning education (Morphew, 2000). There is a clear relationship between the principles of constructivist theory and e-learning and instruction. Constructivism has embedded principles from different disciplines such as education, psychology, philosophy, and the history of science. Constructivist approach provides a strong relationship between user/learner and designer/instructor. To understand constructivist theory and implications, learning, learning process and the instructor's role in the learning process should be explained.

#### ***4.1. Constructivist Learning Environment and Instructional Design***

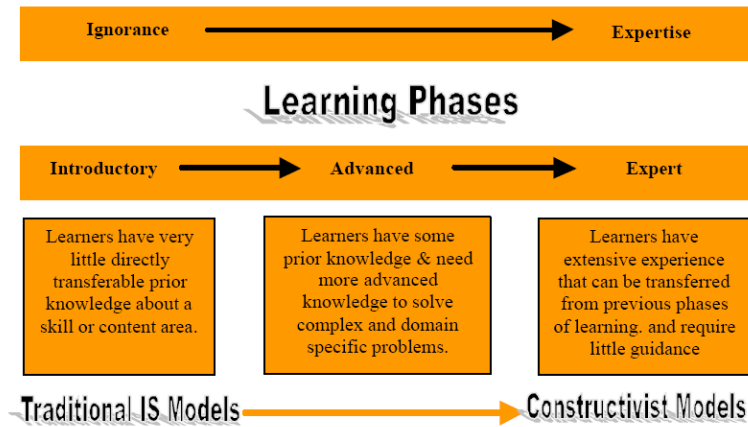
Moallem (2001:116) stated that "Jonassen's 'Constructivist Learning Environment' model is widely used to design and develop instruction for computer-based learning environment." Jonassen (1991:11-12) put the design principles related with the learning environment that he called constructivist learning environment. These principles are:

1. Create real world environments that employ the context in which learning is relevant,
2. Focus on realistic approaches to solving real-world problems,

3. The instructor is a coach and analyzer of the strategies used to solve these problems,
4. Stress conceptual interrelatedness, providing multiple representations or perspectives on the content,
5. Instructional goals and objectives should be negotiated and not imposed,
6. Evaluation should serve as a self-analysis tool,
7. Provide tools and environments that help learners interpret the multiple perspectives of the world,
8. Learning should be internally controlled and mediated by the learner.

Constructivist models are based on principles that facilitate designing a constructivist-learning environment. Web-based learning environment designers and developers should determine which approach to learning is most appropriate and useful. Jonassen, McAleese, and Duffy (1993) designed a model to identify three types of learning and they believe all three types appropriate learning theory approaches. Their model, the continuum of knowledge acquisition model, depicts a continuum of knowledge acquisition from ignorance to expertise (see Figure 1). Learning phases are based on knowledge levels, and knowledge grows from introductory, advanced, and expert level. At the expert level, learners have extensive experience and require little guidance in learning for the next content.

**Figure 1:** The Continuum of Knowledge Acquisition Model. Traditional IS (Instructional Strategy) Models.



**Source:** Jonassen, Mcaleese, & Duffy (1993).

According to this model, constructivist learning environments are most effective for the advanced knowledge acquisition stage of learning. On the other hand, Ertmer and Newby (1993) claim that the instructional approach can be effective for advanced level learners, but not effective for novice learners because they are not familiar with the content. Therefore, instructional strategy depends on the level of the learners, because learners have different backgrounds, experiences, and learning styles. Morphew (2000) points out that instructional designers or educators should closely monitor learners during the learning phases and observe growth to modify the program based on the learners' feedback.

#### ***4.2. Adopting Constructivist Principles to a Web-Based Learning Environment***

Constructivism implies that students and teachers bring prior knowledge to the learning experience by using interaction with each other, as well as interaction with other students. They can enlarge their knowledge piece by piece in an e-learning environment. Therefore, constructivism supports the active construction of knowledge in the mind of the student and embeds learning in a social experience. Constructivist learning environment should provide multiple types of representation

(multimedia) and during the learning process should support interactivity with feedback.

### **5. Police Culture and POLNET**

Many people and organizations have resistance to change. This is true in a police environment, as well. Chan (1997:1) examined “the dynamics of change and resistance within a police organization when reforms were introduced to improve relations between police and minorities.” The idea of using the new technologies for police training might also meet resistance and rejection. However, over two decades ago Leonard (1980) pointed out that new technology has direct application in police training academies and in-service training programs.

Information technologies are playing an integral and increasingly vital role in policing (Chu, 2001). Today in the Turkish National Police (TNP), new technologies are used in every phase of the police operation, such as police records and data management, criminal investigations, personnel administration, and the criminal identification system. To facilitate communication and information sharing, TNP has created an intranet which is called POLNET. TNP had spent \$20 million for the POLNET project between 1996 and 2000. The second phase of this project started in 2002 and will be finish at the end of 2005. The second phase of the POLNET project estimated cost of \$36 million and with an additional \$9 million for maintenance. FBI created the Law Enforcement On-line (LEO) system for communication within the organization, and now they are also using this system for training. In Turkey, POLNET can be used for police training like FBI-LEO.

### **6. Methodology**

The methodology of this study involves secondary data analysis as well as an in-depth analysis of the literature. The data was collected from the police supervisors who participated in the TNP management training courses. Security Sciences Institute conducted this survey at the end of the police management training course in April 2005. The questionnaire contained 13 questions about the evaluation of the police management training courses, which were designed by using internet-based video conferencing training (IVCT) system. The sample size was 157. The respondents have at least 11 years of work experience and they have completed the police management training course for promotion.

According to Morse and Richards (2002:15-16), to combine qualitative inquiry and analysis tasks, a researcher should make a deep literature review around the topic. The first section of this proposal demonstrates I have read many books and relevant articles from journals and issues to present deeply literature review.

### ***6.1.Data Analysis and Findings***

When the respondents were asked “Did you watch the link of the courses through the internet without having problems,” 74 subjects (47%) said “yes,” while 72 (46%) said “no.” In answer to the question “Were you able ask the instructor any questions?” only 16 respondents (10% ) said “yes,” while 133 answered “no” (85%) to the item. It is obvious that asking questions to the instructors is the most significant part of learning. The result indicates that this is the weakest point of the police management training course examined during the study, in 2005.

In this study, the first research question is about effectiveness of the e-learning environment by using constructivist theory. It is clear that this learning environment provides synchronous and asynchronous opportunities, so if learners can reach learning materials anytime and anywhere, accessing and technical problem for the course can be lessened or completely solved. Beyond that, when they were asked, “If you could ask questions, how many of you got answered?” only 10% of respondents answered positively. An e-learning (synchronous-asynchronous) system provides access to the instructor for questions without time constraints. Also, when they were asked “Were you satisfied with this course,” 50 respondents (32%) reported “yes” and 101 (64%) said “no.” When the respondents were asked to identify the level of picture and sound quality of the video, 94 (55%) said “very bad” and “bad”; 8 respondents (4%) said “good” and “very good”; and only 10 respondents (6%) said “perfect.” On the other hand, 93 respondents (59%) had problems accessing the courses, and 76 respondents (48%) had technical difficulties. Only 26 respondents (17%) could access all courses completely, and 23 respondents (15%) could not access the course properly. It is clear that the only possible solution for minimizing these problems is to create an e-learning environment by using constructivist theory. Indeed, the data show that synchronized IVCT system problems can be solved by using synchronous and asynchronous together in creating e-learning.

Responses, in general, indicate that the e-learning environment needs somewhat improvement for a satisfactory level of training. Technical problems such as connection and sound quality, the physical aspect of training, seem to have affected the quality of the course in a negative way as a considerable part of participants indicated negative perceptions. This could be fixed, though, in time with advances in technology. Along with the technical problems, respondents also pointed out disadvantages about the nature of distance learning such as lower chances of, if at all, interaction between trainers and trainees.

The second research question is whether the e-learning system will reduce the costs and increase the benefits. It is obvious that if the promotion exam and final exam is put in e-learning environment, police supervisors will not need to come to Ankara to take these two exams. Organization will not pay twice travel and lodging expenses. In other words, if police management training courses are designed by using the principles that mentioned in the literature review, organization will save money and manage to diminish the problems.

### **Conclusion and Discussion**

From 1995 to today, e-learning is a rising idea. Many private companies and governmental organizations have been using e-learning for personnel training and in-service training. In fact, many police organizations in the United States are using on-line training system successfully; therefore, Turkish National Police should strongly consider using on-line training for the police management training and other in-service training. TNP has also advantages to use e-learning because they have already had strong infrastructure intranet system called POLNET, and highly qualified computer programmers and experts. This potential can be utilized to create an effective e-learning environment using constructivist principles to provide more interaction between training participants and instructors.

TNP can remove or significantly reduce the lost hours of production and travel and lodging costs by using e-learning for police management training course. The main concern about 100 percent e-learning is cheating in the exams. The current training system requires two exams. The first one is given at the beginning of the courses which is called promotion exam and the second one is the end of the courses which is called final exam. These two exams are vital because if they fail the exam they can not be promoted. These concerns are very common for many e-learning courses, but there are also many solutions to remove these



concerns. However, it may be a fallacy to think that e-learning is a panacea for every kind of learning problem, but it is a solution for these kinds of problem which is clearly understood from the data findings. For the future studies, e-learning environment can be used also in-service training for the TNP members.

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