



## Improving Local Educational Services with Distance Education: The Case of Tepebaşı City Institute

### Yerel Eğitim Hizmetlerinin Uzaktan Eğitim ile İyileştirilmesi: Tepebaşı Kent Enstitüsü Örneği

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**Article Type:** Research Article

**Application Date:** 14.08.2023

**Accepted Date:** 19.10.2023

**To Cite This Article:** Kayabaş, İ. & Özgür, A. Z. (2023). Improving local educational services with distance education: the case of Tepebaşı City Institute. *Anadolu University Journal of Education Faculty (AUJEF)*, 7(4), 1137-1158.

**ABSTRACT:** Municipalities, one of the most important elements of local governments in Türkiye, are among the leading organizations that conduct intensive educational activities, apart from institutions whose main function is education, such as the Ministry of National Education and higher education institutions. Local educations organized by municipalities and mostly aimed at helping the personal, social, and professional development of the local people appeal to a very wide audience of millions varying in age, education status, social status, disability status, and more. Considering its sphere of influence, it is thought that local education services conducted by municipalities assume an important role within the Turkish education system. Based on this assumption, the City Institute Project was initiated in collaboration with Anadolu University and the Tepebaşı Municipality of Eskişehir. Within the scope of the project, the structure of educational services carried out by local governments, its place in national education policies, and its sphere of influence were first investigated. In line with the findings obtained, 10 new courses were prepared based on a teaching model designed to support and improve local educational services with distance education. The prepared courses were made available to the masses via the Tepebaşı City Institute Lifelong Learning Portal, which was developed from scratch for the needs of the project and were evaluated according to the opinions of the students. In summary, this study examined the role and impact of local educational services within the scope of national education policies, based on the findings and results obtained from the Tepebaşı City Institute Project. Additionally, experiences related to how distance education theory could be utilized to improve local educational services were shared.

**Keywords:** Distance education, lifelong learning, blended learning, local government, municipality

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**ÖZ:** Türkiye’deki yerel yönetimlerin en önemli unsurlarından biri olan belediyeler, Millî Eğitim Bakanlığı (MEB) ve yüksek öğretim kurumları gibi ana işlevi eğitim olan kurumlar dışında, yoğun eğitim faaliyetleri düzenleyen organizasyonların başında gelmektedir. Belediyeler tarafından düzenlenen ve çoğunlukla yerel halkın kişisel, sosyal ve mesleki gelişimlerine yardımcı olmayı amaçlayan yerel eğitimler yaş, öğrenim durumu, sosyal statü, engellilik durumu gibi yönlerden farklılık gösteren milyonlarca kişilik çok geniş bir kitleye hitap etmektedir. Sahip olduğu etki alanı dikkate alındığında, belediyeler tarafından yürütülen yerel eğitim hizmetlerinin Türk eğitim sistemi içerisinde önemli bir rol üstlendiği düşünülmektedir. Bu varsayımdan yola çıkarak Anadolu Üniversitesi ve Eskişehir Tepebaşı Belediyesi iş birliğiyle Kent Enstitüsü Projesi hayata geçirilmiştir. Proje kapsamında öncelikle yerel yönetimler tarafından yürütülen eğitim hizmetlerinin yapısı, ulusal eğitim politikalarındaki yeri ve etki alanı araştırılmıştır. Elde edilen bulgular doğrultusunda yerel eğitim hizmetlerinin uzaktan eğitim ile desteklenerek iyileştirilmesi amacıyla bir öğretim modeli tasarlanarak bu modeli temel alan 10 yeni eğitim hazırlanmıştır. Hazırlanan eğitimler, proje ihtiyaçlarına yönelik olarak sıfırdan geliştirilen Tepebaşı Kent Enstitüsü Yaşam Boyu Öğrenme Portalı üzerinden kitlelerin kullanımına sunulmuş ve öğrencilerin görüşleri doğrultusunda değerlendirilmiştir. Özetle, bu çalışmada, Tepebaşı Kent Enstitüsü Projesinde elde edilen bulgulardan ve ulaşılan sonuçlardan yola çıkarak yerel eğitim hizmetlerinin ulusal eğitim politikaları kapsamındaki rolü ve etkisi incelenmiştir. Ayrıca yerel eğitim hizmetlerinin iyileştirilmesi amacıyla uzaktan eğitim teorisinin nasıl işe koşulabileceğine ilişkin deneyimler paylaşılmıştır.

**Anahtar sözcükler:** Uzaktan eğitim, yaşam boyu öğrenme, harmanlanmış öğrenme, yerel yönetim, belediye

## 1. INTRODUCTION

Recent legislative regulations related to local governments have substantially expanded the sphere of action for municipalities, leading to a significant enhancement in their capacities. Türkiye's vision of municipal governance stands in a much more advanced position today compared to the past and will further progress in the future due to the ongoing initiatives (Güllü, 2023). In this evolution, local educational initiatives spearheaded by municipalities play a crucial role in enhancing both the cultural and social caliber of the human resources in the region (Longworth, 2006).

Since the 1990s, there has been a notable shift towards local governments, especially municipalities, taking on a more prominent role in the field of education and providing extensive educational services. Within Türkiye's democratization process, this role assumed by local governments complements the policies of primary educational institutions such as the Ministry of National Education and higher education establishments, exerting a significant influence on local community education (Görgülü, 2019).

Local educational services executed by municipalities are designed considering demographic factors related to individuals, such as age, educational level, social status, and disability. These services encapsulate the general population of the region. Given their structure, local educational services are recognized as a vital component within national educational policies.

These local courses are primarily structured to address the educational needs of the regional population, elevate the overall educational level of the community, and provide opportunities for personal, social, and professional development. Therefore, it's imperative to perceive the educational services offered by municipalities as an integral part of the broader Turkish education system and to continue efforts to enhance the quality and efficacy of these services.

In line with this necessity, the City Institute Project was conceived and successfully implemented between 2017-2019, a collaborative endeavor between Anadolu University and the Tepebaşı Municipality in Eskişehir. Supported by the Anadolu University Scientific Research Projects Commission with the project number 1606E531, this initiative investigated how local educational services, specific to municipalities, could be improved using a distance education approach.

In summary, this study evaluates the role and impact of local educational services within the framework of national education policies based on findings and results obtained from the Tepebaşı City Institute Project. Additionally, experiences on how distance education theory can be employed to enhance local educational services have been shared.

### 1.1. Local Governments in Türkiye

The administrative structure in Türkiye is primarily delineated in the context of central and local governance, with their interrelations and jurisdictional divisions determined by the Constitution and statutes. Central governance exercises authority over all provinces, districts, and villages, defining the administrative policies of the nation. On the other hand, local governments are governing entities responsible for managing a specific region or community. Metropolises, municipalities, provincial special administrations, and villages constitute the units of local governance. Hierarchically, local authorities are subject to the oversight of central governance, with their powers exercised within legal frameworks set by the central government (Mecek & Atmaca, 2020).

In comparison with other countries, Türkiye's local governance structure exhibits notable disparities. For instance, in the United States, a federal state, both states and local governments possess greater autonomy and authority. States have the liberty to draft their constitutions and laws. Conversely, local governments are generally more beholden to state laws than federal mandates. Broadly, each nation's local governance structure varies, contingent on its political system, historical trajectory, geographical considerations, and other factors (Lijphart, 2012).

Fundamentally, while ensuring governance for a specific region's populace, local administrations fulfill the following key duties and responsibilities (Nalbandian et al., 2013):

- **Service Provision:** Local governments are tasked with supplying services such as water and wastewater services, waste collection and management, transportation, parks and recreational areas, urban infrastructure maintenance, local education, and cultural activities.
- **Infrastructure Management:** Local governments are responsible for maintaining roads and bridges, operating and improving public transportation systems, and maintaining and enhancing of water and sewage systems.
- **Community Development and Planning:** Local governments play a pivotal role in urban and regional planning, economic development, community services, housing policies, and environmental conservation.
- **Implementation of Laws and Regulations:** Local governments bear the responsibility for the enforcement of local laws and regulations.
- **Promoting Local Democracy:** Local governments bolster local democracy, encouraging participation from the local populace and representing the voice of local communities. They represent the views and interests of the local populace through local elections, referendums, and other democratic processes.

Examining the historical genesis and evolution of municipalities in Türkiye, established to address communal necessities, it's observed that initially, they primarily delivered essential services in cities such as water, waste management, housing, energy, and transportation. The onset of municipalities providing educational services notably followed the substantial completion of urban infrastructure and a burgeoning demand from society for education accessibility. Nevertheless, the role and contributions of municipalities in educational services have transitioned and expanded over time (Öztaş & Zengin, 2008).

## 1.2. Role of Local Governments in Turkish Education

Education is a critical part of the duty of local governments to increase the welfare level within their jurisdiction. Globally, the ways in which local governments provide educational services differ significantly based on national contexts and local characteristics. In some countries, the salaries of teachers are paid by local government units, especially municipalities, while in others, municipalities oversee and evaluate schools through their internal education boards. This emphasizes the direct contribution of local governments to education policies and practices and their role in shaping these processes.

The only local government association recognized worldwide by the United Nations is the United Cities and Local Governments (UCLG). In a report they published in 2019, they highlight the importance of local and regional governments in implementing national education policies under the fourth United

Nations Sustainable Development Goal of "Quality Education". Accordingly, UCLG advocates for the localization of national education activities, emphasizing that municipalities should be more active in developing educational infrastructure, vocational training, and extracurricular activities (UCLG ASPAC, 2019).

In Türkiye, the legal framework for the activities of local governments in the field of education is determined by Law No. 5302 on Provincial Special Administration, Law No. 5393 on Municipalities, Law No. 5216 on Metropolitan Municipalities, and Law No. 442 on Villages. For instance, the clause mentioned in Article 7 of Law No. 5216 on Metropolitan Municipalities, which states "... to provide social and cultural services for the elderly, disabled, women, youth, and children; to open vocational training and skill courses ...", highlights the legal basis for the educational activities currently offered by municipalities.

In Türkiye, it is notable that local governments play a more active role in non-formal education since their participation in formal education is quite limited by laws. In this context, when looking closely at the activities of local governments in formal education, it is seen that they are limited to tasks such as school/dormitory construction, maintenance, repair, and material/equipment support. From the perspective of non-formal education, local governments have more flexibility. They can provide extensive local education services within organizations like public education centers, art centers, vocational training-apprenticeship courses, and sports schools (Agun, 2017).

Non-formal education, a model focused on lifelong learning activities outside formal education, is generally aimed at individuals who want to acquire skills or knowledge in a specific field, those who are outside the formal education system, or those within the system but need additional training. The Regulation on Non-formal Education Institutions issued by the Ministry of National Education (MEB) regulates the procedures related to the establishment and operation of non-formal education institutions (MEB, 2010). This regulation defines non-formal education and outlines the activities of institutions operating in this field. Non-formal education activities are determined according to individuals' interests, desires, and talents and generally support their economic, social, and cultural development. The main goal of these activities is to enhance individuals' lifelong learning skills.

Artistic and vocational training courses offered by metropolitan municipalities form a significant focus within local educational services. Established in 1996 under the name İSMEK, the İstanbul Metropolitan Municipality Art and Vocational Training Courses are at the center of this focus. Since its inception, İSMEK, which has provided educational opportunities to over 3 million people, offers training in various areas ranging from vocational training to art, information technologies, and personal development (İstanbul Metropolitan Municipality, 2023). This structure, pioneered by the İstanbul Metropolitan Municipality, has been adopted by other metropolitan municipalities such as Ankara, Antalya, Balıkesir, Bursa, Eskişehir, Gaziantep, Hatay, İzmir, Kayseri, and Konya.

Although the Ministry of National Education and higher education institutions are the main actors of education policies, the contributions of municipalities to educational services create significant added value (TÜİK, 2016). According to data summarized in Table 1, in 2016, 1,781,471 people attended 18,571 courses offered by municipalities, and 1,666,217 of these individuals successfully completed their courses.

**Table 1:** *Non-Formal Education Activities Given by Institutions/Organizations (TÜİK, 2016).*

Institutions/Organizations	Courses		Attendees		Graduates	
	2015	2016	2015	2016	2015	2016
Ministry and affiliated institution/organization	37,358	35,367	2,856,478	4,686,269	2,802,955	4,650,878
University	4,671	4,748	321,065	415,502	304,262	384,771
Municipality	19,115	18,571	1,450,945	1,781,471	1,346,538	1,666,217
Confederation and union	618	781	62,908	85,141	62,847	85,071
Foundation and association	9,365	12,700	1,019,720	643,122	1,009,412	638,201
<b>Total</b>	<b>71,127</b>	<b>72,167</b>	<b>5,711,116</b>	<b>7,611,505</b>	<b>5,526,014</b>	<b>7,425,138</b>

Municipalities generally provide non-formal education services in areas like preschool and adult education, vocational training, and personal development. In this process, compared to central organizations, municipalities can offer more effective education tailored to the needs and expectations of the local community. Therefore, strengthening and expanding the ability of municipalities to provide educational services can increase community access to education and improve education quality.

In today's world, equipping individuals with knowledge, skills, and abilities that meet the requirements of the age has become one of the most critical elements of sustainable social and economic development (Yaman, 2023). Vocational training plays a vital role in both urban growth and determining the socio-economic development levels of countries. Generally, vocational training falls under the responsibility of national governments. However, this issue is also directly or indirectly related to local governments. The goals of local governments are not limited to managing urban areas and economic structures. They should also aim to enhance urban development, city growth, and the quality of life of city residents.

### 1.3. Improving Local Education Services with Distance Education

The duration, content, learning process, evaluation criteria, and similar educational elements of courses offered under the auspices of local governments are determined by the instructor. Instructors are usually selected from volunteers with expertise in the relevant subject. Although rare, large-budget organizations like İSMEK have their own instructor staff. During this process, there is often no assessment of the instructors' professional and academic competencies.

The primary method preferred in delivering local education services is face-to-face classroom education. However, with the Covid-19 pandemic, courses referred to as "distance education" have also become frequently chosen. In this so-called distance education format, instructors conduct their courses using online video conference tools such as Zoom.

The durations, content densities, and student evaluation criteria of courses organized by local governments vary significantly. Therefore, it's not possible to talk about a common standard. Students who complete the evaluation process of the relevant course based on the criteria set by the instructor are given success or participation certificates. Certificates given by local governments have become one of the most important individual performance proofs used in today's job search processes in Türkiye.

The development of city-centered strategies by local governments in providing comprehensive education services is a topic open to many criticisms. The focus of these criticisms is mainly on the competencies, capacities, and organizational skills of local governments in providing educational services efficiently and effectively. The distance education approach has the potential to yield successful results in solving these problems faced within the scope of local government educational practices.

In its broadest definition, distance education is a learning model that has evolved with technological developments and offers education opportunities without geographical limitations (Haythornthwaite and Andrews, 2011). Contrary to traditional approaches, it doesn't require learners to be physically present in a classroom or on a campus. Instead, using information technology capabilities, learning is accomplished through interactive communication channels. It provides a robust framework for designing and developing time and space-independent learning-teaching ecosystems.

Distance education empowers individuals to manage their learning processes directly. It offers students the freedom to choose what, where, and when they want to learn. Its flexible structure gives students the opportunity to determine their learning pace and organize their learning processes according to their individual needs. This flexibility provides a significant advantage in accessing education, especially for working individuals, housewives, or those living in geographically isolated regions.

Properly structured distance education systems enhance students' self-management skills and support their learning at their own pace. Especially, gamified student-content interactions, interactive e-lessons, e-books, and online activities positively enhance the learning process. If a student needs more time to understand a particular subject, they can revisit the online lesson materials. In traditional teaching, the pace set by the teacher usually guides the class, which can lead some students to fall behind or become bored.

Technological advancements have allowed for diversification in the tools used in distance education. Videos, live broadcasts, animations, and interactive tests offer students a rich learning experience. Also, interactions conducted over various digital platforms maintain a constant communication flow between student-teacher and student-student.

However, despite these potential advantages of distance education, there are challenges encountered. In this self-learning dominant model, the student must work with consistent motivation. This can be challenging for some students. Additionally, a lack of technological infrastructure or an individual's low level of digital literacy can reduce the effectiveness of distance education. In this context, it can be said that both technological and pedagogical comprehensive preparation processes are necessary for the effective implementation of distance education.

Distance education systems can be designed either as a fully online learning platform or as a virtual educational environment supporting face-to-face classroom education. This model, aiming to combine the strengths of face-to-face education and distance education under one roof, is termed "blended learning". A well-structured blended learning ecosystem can overcome challenges like social isolation and lack of motivation encountered in distance education, offering students a more comprehensive and qualitative learning experience.

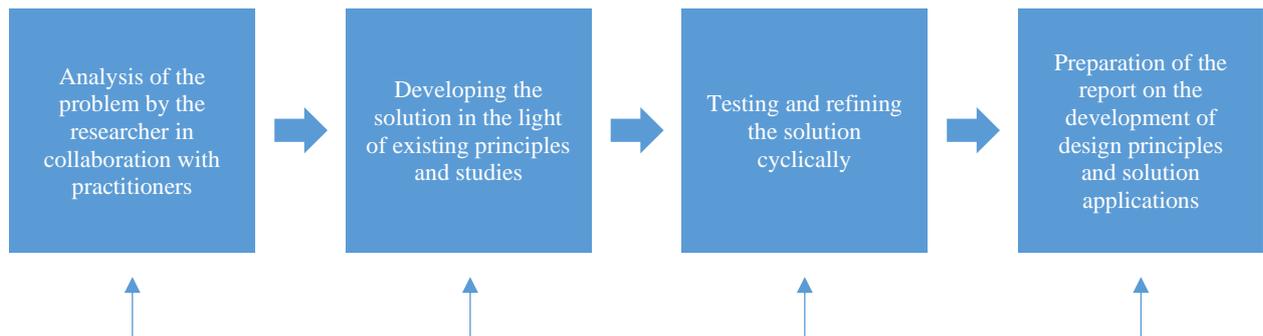
## 2. METHOD

The primary objective of the Tepebaşı City Institute Project is to determine the design principles for a remote education system that can enhance the potential of local governments to provide educational services and develop its implementation model.

This project, which was designed and developed adhering rigorously to the principles of scientific research and publication ethics, aims to achieve the following outcomes:

1. Determine the design principles that must be adhered to for local municipalities to successfully and sustainably conduct online lifelong learning activities.
2. Enhance the potential of municipalities in offering local educational services.
3. Develop a best practice model for municipalities to carry out online lifelong learning services.

The research scope of the project is limited to the Tepebaşı Municipality of Eskişehir province and its local community in Türkiye. The project has been designed using the design-based research method (Reeves, 2006). Specifically, the design-based research, which offers a robust framework for the development of technology-focused teaching and learning practices, describes a cyclical process with four fundamental phases (Figure 1).



**Figure 1:** *Design-based Research Process (Reeves, 2006)*

### 2.1. Analysis

The work packages and the outputs obtained in the analysis, which is the first stage of the project process, are detailed below.

#### 1. Literature review

In the analysis phase of the project, the latest experiences and application recommendations in lifelong learning research conducted by scientists on the axis of local governments and vocational education have been reviewed, considering scientific sources.

#### 2. Examination of Tepebaşı Municipality's past and current practices

A detailed review was conducted to transfer the gains and experiences obtained from the face-to-face training conducted by the Municipality in previous periods within the scope of local houses and special courses. As a result of this review:

- Educational programs offered to citizens by Tepebaşı Municipality so far,
- The quality of existing human resources and new employment opportunities,

- Technical infrastructure and technological facilities were determined.

### 3. *Gathering opinions from the target audience*

The opinions of students who attended the face-to-face training offered in Tepebaşı Municipality's local houses were included in the project's analysis phase. The aim was to determine the expectations and needs of the local community, which is the focal point of the project.

A printed survey form was used as a data collection tool. The survey was administered to individuals receiving training in Tepebaşı Municipality's local houses. The response rate to the survey was about 70%, with 175 out of a total of 250 surveys returned. 146 of these surveys were of evaluable quality.

### 4. *Determining development and learning needs*

The findings obtained from the literature review, past and current practices of Tepebaşı Municipality, and opinions of the target audience were discussed in line with the opinions, experiences, and expectations of the Mayor of Tepebaşı, Deputy Mayor, IT Manager, and other authorities. Regular meetings were held at intervals and with different agendas during this phase to shape the outputs of the analysis phase. **The primary output from the analysis phase** was the determination of the target audience's development and learning needs. Accordingly:

- The goal is to take the training received by the people of Eskişehir in local houses to a further stage and offer these trainings both face-to-face and online via computer.
- With new training programs to be realized in collaboration between Tepebaşı Municipality and Anadolu University, the offered training will be expanded and transformed into a **City Institute**.
- **Tepebaşı City Institute** should comprise courses that can address the lifelong learning needs of all citizens, from 7 to 77.
- **Training to be provided in Tepebaşı City Institute** should be structured to allow individuals to gain both theoretical and real-life applications of the competencies defined as 21st Century skills.

### 5. *Determining priority training areas and scopes*

**As the second output of the analysis process**, the training fields and scopes to be offered in Tepebaşı City Institute were determined. Accordingly, 15 courses in technology, personal development, health, hobby, and life areas, where citizens are likely to show demand, were selected. A faculty of educators has been formed from Anadolu University academicians and private sector experts whose resumes and expertise fit the chosen courses.

### 6. *Defining system and learning design principles*

**The third output of the analysis phase** was the determination of system and learning design principles for the Tepebaşı City Institute. Accordingly:

- Tepebaşı City Institute is a **lifelong learning platform** designed to provide solutions to individual and institutional learning needs evolving within the framework of 21st Century skills.
- All learning-teaching processes of the Tepebaşı City Institute will be managed via a **cloud-based learning management system** accessible from <http://kentenstitusu.tepebasi.bel.tr>
- Tepebaşı City Institute should support both distance and face-to-face learning-teaching processes in line with the **blended learning** model.

- Tepebaşı City Institute should be **independent of place, time, device, and environment**. Learners should be able to follow learning activities 24/7 from anywhere they wish using various devices like mobile phones, tablets, desktop computers, etc.

## 2.2. Design

The design of the Tepebaşı City Institute is based on the outputs obtained during the analysis process and consists of three main parts.

### 1. *Designing of the Tepebaşı City Institute*

In the design phase, firstly, the educational design model of the Tepebaşı City Institute was created. Then, considering the corporate identity, vision, and mission of the Tepebaşı Municipality, the logo, visual identity, user experience, and web interfaces of the Tepebaşı City Institute were prepared.

- **User Interface**

The user interface of the Tepebaşı City Institute has been designed within intuitive and adjustable design approaches to function on all mobile devices without any loss of functionality. It can be used on all devices, including mobile phones, regardless of screen size, without requiring any additional actions.

- **Personalized Workspaces**

A personalized e-learning environment called My Workspace is being created for all users of the Tepebaşı City Institute. Through this virtual workspace customized according to the training received, users can manage their own learning processes independently of time and place.

- **User and Course Management**

The Tepebaşı City Institute has a learning management system developed to manage large learner groups. Thanks to the user management features created within a role-based structure, user accounts with different roles can be managed quickly and easily. Learners can register in the system with the information they determine themselves through individual registration. All course management needs such as adding, editing, and deleting can be done online. In addition, various e-learning content types, including videos, images, audio, and presentations, can be quickly and easily presented to learners through the learning management system.

- **e-Learning Content**

Content consists of knowledge structures shaped according to learning outcomes and explains what and how it will be taught. From a teaching design perspective, it is necessary to clearly define not only what will be taught but also how it will be taught. Based on this, the use of interactive e-lessons containing intensive student-content interactions has been preferred in the design of e-learning content.

- **Communication and Tutoring**

In addition to email, social networks like Facebook and Twitter are also used for academic, technical, and institutional support services to be offered to learners. Academic questions specific to the course are followed and answered by those responsible for the

course. Unlike classroom teaching, the role of educators in distance education has been determined as leadership rather than teaching. All technical and instutional questions outside of academic content are answered by a support team working under the coordination of the Tepebaşı Municipality.

Learners can communicate both with educators and among themselves, hold discussions related to the course, and exchange ideas using discussion boards created specifically for each course. Each course has its own discussion board, and these boards are regularly monitored by assigned tutors.

Depending on the structure of the course, face-to-face classroom activities can be organized. Face-to-face activities can be conducted with virtual classroom management as well as using townhouses affiliated with the Tepebaşı Municipality.

- **Performance Tracking and Evaluation**

Online exam technique is used in the courses published within the Tepebaşı City Institute to measure student success. In the online final exam that will be conducted online and unsupervised, students are asked to answer a total of 20 multiple-choice questions in 30 minutes per course. Students who score 70 and above out of 100 in the final exam are considered successful and earn the right to receive an e-certificate. For the evaluation of student activities in practice-oriented courses, the online assignment tool is also used. Assignments published using the Tepebaşı City Institute learning management system can be completed by students, and the assignment output can be uploaded digitally to the system. A student who meets the success criteria of the registered course is rewarded with an e-certificate related to the course. The e-certificate is automatically generated by the learning management system and delivered to the student via email. The Tepebaşı City Institute learning management system has the ability to track the performance of learners and educators and report on various criteria.

## 2. *Design of the e-lesson software and development of a prototype*

During this process, an interactive e-lesson software was designed to present Tepebaşı City Institute's e-learning contents to students, and a prototype of an example e-lesson was developed. The first unit of the "Mobile Application Development" course was chosen as the prototype. All courses in the project were developed by taking this prototype as a model.



**Figure 2:** Cover Screen of Interactive e-Lesson Prototype

The teaching design of the Tepebaşı City Institute's e-lessons adopts a self-paced learning approach. Within the framework of the self-paced learning approach, e-learning contents are developed using various media such as text, graphics, sound, and video, based on a series of learning objectives. Techniques such as explanations, examples, activities, and feedback are structured in context of a scenerio to make learners self-sufficient.

Tepebaşı City Institute's courses are designed to be completed in an average of **2-6 weeks**, with a study pace of **2-3 hours** per week. e-Learning materials detailed below are being developed for each course:

- **Course Syllabus**

The course syllabus can be defined as a draft that encompasses all learning outcomes, components, and processes related to the learning process. It also serves as a contract between the instructor and the students, informing both parties about the learning, teaching, and evaluation processes, and documenting their rights, duties, and responsibilities. A course syllabus is primarily prepared for each course within the project. The information provided in the course syllabus includes:

- Course Description
  - What prior knowledge should learners possess to successfully complete the course?
  - What is the primary purpose of the course?
  - What are the focus points and main topics?
  - Who is the target audience?
  - Why should learners take this course?
- Learning Outcomes
  - What are the expected gains for learners at the end of this course?
  - What knowledge and skills are expected from learners by the end of this course?
- Materials

- e-Learning Contents
  - Print publications like books and magazines
  - Web links
  - E-tutoring Process
  - Tips for Success
  - Measuring Learning Performance and Certification
- **E-book**

In its broadest sense, an e-book can be defined as digital publications accessible through devices like computers, tablets, and mobile phones. For each course within the project, one e-book is being prepared in an interactive PDF format to be distributed online. Alongside the text, the interactive PDF file format, which can be enriched with sound, video, and web links, offers users a quick and easy use on all devices from desktop to mobile. The e-book text, prepared by the course expert, is produced by the project's design and development team in an interactive e-book format. The rules and tips to be considered in this process are as follows:

- An e-book should consist of at least 4 units and at most 8 units.
- The length of a unit should not exceed 10 pages.
- An e-book consists of the following sections:
  1. Cover
  2. Preface
  3. Table of Contents
  4. Unit(s)
    - Cover
    - Learning Outcomes
    - Keywords
    - Content
      - First-level Heading
      - Second-level Heading
  5. References
- **Primary focus on e-learning:** The primary goal in preparing the courses' e-books within the Tepebaşı City Institute is to provide an interactive e-learning material that will address the learners' self-learning needs. Therefore, the e-book should enable learners to learn on their own without needing an instructor. As a lifelong learning platform aiming for self-learning, the primary learning source for Tepebaşı City Institute is e-learning content rather than the instructor. Hence, the course content should be determined considering digital, screen-based online e-learning environments like e-books and interactive e-lessons.
- **A more intimate writing style:** Considering that the main target audience of Tepebaşı City Institute is young adults, a more intimate language and tone should be used instead of a formal one, embellished with contemporary examples that the target group can relate to.
- **Engaging content:** Efforts should be made to offer information that learners can relate to in their lives. Considering adult learners, creating an effective e-learning environment

where they can obtain the information they need in their real lives can positively impact success and continuity of the course.

- **Simple and fun:** The course content should be designed in a simple and fun structure, enriched with sound, video, animation, and interactive application examples. Overloading with information should be avoided.

- **Interactive e-Lesson**

The interactive e-lesson is a commonly used e-learning approach in self-paced distance education applications. An e-lesson is a linear screen sequence that can include text, graphics, animations, sounds, videos, interactive learning activities, and feedback forms.

For each course within the project, interactive e-lessons (one for each unit) are being produced. The first step in the interactive e-lesson development process is scripting. The main purpose of scripting is to create a presentation and plan that describes how the training content will be transformed into interactive e-lessons. Each scripted unit is developed using interactive e-lesson software by the design and development team.

Rules and tips defined for this process are:

- One interactive e-lesson will be developed for each unit.
- Each interactive e-lesson should have a content intensity that can be completed by learners in a maximum of 60 minutes.
- An interactive e-lesson consists of the following sections:
  1. Cover
  2. Introduction
  3. Content
  4. Summary
- An interactive e-lesson should include the following multimedia and interaction elements that are relevant to the topic.
  1. Multimedia (Text, voice-over, video, animation)
  2. Interaction (Multiple-choice question, video-based question, voice-based question, matching question, fill in the blanks question, simulation, case study, game)

### 3. *Preparation of the Tepebaşı City Institute e-Learning Guide*

The design, development, and evaluation processes of a lifelong learning platform like the Tepebaşı City Institute require collaborative work from experts in various fields, such as instructional designers, subject matter experts, graphic designers, developers, and the like. This structure involves a high level of interdisciplinary interaction. One of the most crucial points to note in this context is ensuring that the working team operates towards common goals.

With this understanding in mind, during the planned design phase, based on the outputs obtained from the analysis phase, a web-based online guide covering all the project's business development processes has been prepared.

The document, named the Tepebaşı City Institute e-Learning Guide, contains the following details:

- Description of the project and its intended objectives

- System and instructional design principles
- Structure of the Tepebaşı City Institute
- Information, examples, and templates related to e-learning materials
- The working team, task distribution, work plan, and work schedule

The Tepebaşı City Institute e-Learning Guide has been made available for stakeholders at <http://kententitusu.tepebasi.bel.tr/eogrenme-kilavuzu>.

### 2.3. Development

During this phase of the project, the focus has been on the development of the Tepebaşı City Institute's Lifelong Learning Platform, adhering to the specified design principles. The development process has been managed in two main sections: (1) Development of the Learning Management System and (2) Development of Interactive e-Lessons.

#### 1. *Development of the Learning Management System*

At its most basic, learning management systems are defined as software that manages learning-teaching activities. The purpose of using learning management systems is to provide a systematic and manageable structure to learning-teaching activities designed within the framework of distance education.

The Tepebaşı City Institute's learning management system has been developed from scratch based on project needs. Since the primary goal of the project was to design a learning experience specific to its local services, the use of an open-source or commercial learning management system like Moodle or Blackboard was not preferred.

#### 2. *Development of Interactive e-Lessons*

The interactive e-lesson development process consists of three stages:

- 1. Preparation of course content:** At this stage, the theoretical foundation and knowledge base of learning-teaching processes are documented. Course contents have been prepared by instructors chosen based on voluntary participation from Anadolu University faculty members (Table 2).
- 2. Storyboarding:** In this phase, the course contents prepared by the relevant instructor are turned into storyboards to make them suitable for interactive e-lesson design and development processes. Interactive e-lesson storyboards, created using Microsoft PowerPoint software, provide guidelines on how the course content will be presented screen by screen. Storyboards provide details on how text, voiceover, video, animation, and interaction will be presented on the relevant screen. The interactive e-lesson storyboards have been prepared by an instructional design committee consisting of the project's researchers.
- 3. Development:** The primary goal of the courses within the scope of the Tepebaşı City Institute is to prepare interactive e-learning material that addresses the self-learning needs of the learners. From this perspective, the developed interactive e-lessons enable learners to learn on their own without the need for an instructor. Interactive e-lessons have been developed considering digital, screen-based online e-learning environments. The

development process is carried out based on the interactive e-lesson storyboards. In this process, voiceover recordings, graphic designs, animation productions, and HTML5 codings are implemented.

## 2.4. Implementation and Evaluation

The Tepebaşı City Institute Lifelong Learning Portal developed within the scope of the project was opened for user registration on October 1, 2018, at <http://kentenstitusu.tepebasi.bel.tr>. On October 15, 2018, the completed modules of the courses were made available to registered students.

The development process of interactive e-lessons was conducted in parallel with the education and training process. The completed modules of each course were made accessible to students on a weekly basis. The complete list of final courses developed within the Tepebaşı City Institute and made available to the masses is provided in Table 2.

**Table 2:** Courses of Tepebaşı City Institute

Course	Instructor	Units	Learners
Effective Communication	Asst. Prof. Dr. Gizem Koçak Prof. Dr. Aydın Ziya Özgür	3	298
Financial Literacy	Prof. Dr. Güven Sevil	5	198
Photography	Assoc. Prof. Dr. Feyyaz Bodur	5	225
Food Safety	Prof. Dr. Ali Ekrem Özkul	2	113
Entrepreneurship	Asst. Prof. Dr. Hasan Bakır	5	191
English	ICU English (Sponsor)	A1 ve A2	249
Personal Information Security	Asst. Prof. Dr. İlker Kayabaş	3	0
Mobile Application Development	Asst. Prof. Dr. İlker Kayabaş	5	0
Customer Relationship	Asst. Prof. Dr. Seçil Kaya	4	86
Social Media	Asst. Prof. Dr. Fatma Zeynep Özata	3	188
Web Design	Asst. Prof. Dr. İlker Kayabaş	5	0
<b>Toplam</b>		<b>40</b>	<b>1548</b>

The promotional activities of Tepebaşı City Institute were carried out using the local resources of Eskişehir Tepebaşı Municipality and social media. Within this context, billboard advertisements were placed in certain areas of Eskişehir at different time intervals. Additionally, advertisements were published on Facebook and Twitter through the @kentenstitusu user account.

Promotional activities were very limited due to the 2019 local elections. Nevertheless, the Tepebaşı City Institute received 1,548 course registrations from 725 different users. The distribution of users according to the courses is provided in Table 2.

Since its launch, the Tepebaşı City Institute has been visited 5,753 times by 2,776 different users, and a total of 41,406 page views have been recorded. Of the users, 53.73% (1,492) accessed the Tepebaşı City Institute via mobile, 43.64% (1,212) via desktop, and 2.63% (73) via tablet devices. The distribution of users visiting the Tepebaşı City Institute by city is provided in Table 3.

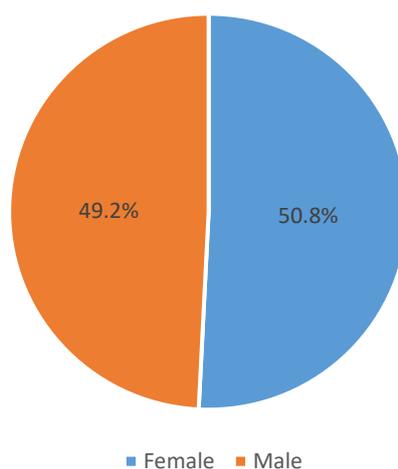
**Table 3:** *Distribution of Users by Cities*

City	Learners	Percent (%)
Eskişehir	1,409	46.59
Ankara	1,090	36.04
İstanbul	221	7.31
Izmir	47	1.55
Bursa	24	0.79
Unknown	23	0.76
Antalya	23	0.76
Adana	16	0.53
Kirikkale	16	0.53
Mersin	9	0.30

#### 4. FINDINGS

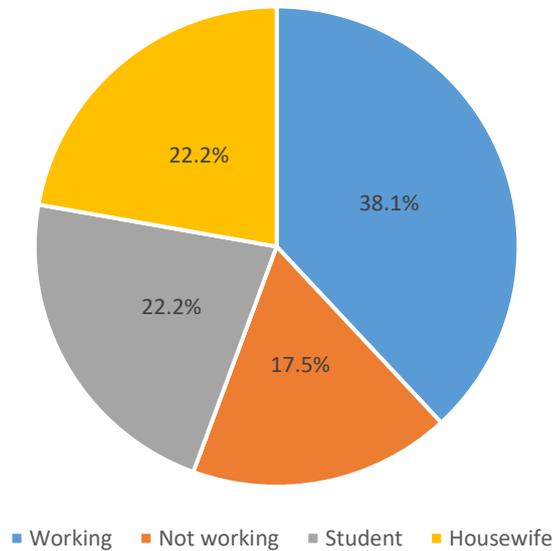
To collect users' opinions on the Tepebaşı City Institute, an online survey was designed. With the survey, users were asked to evaluate the Tepebaşı City Institute in the context of education, program, materials, learning management system, physical environment, and instructor dimensions. The Tepebaşı City Institute User Evaluation Survey was sent to registered users via email and published at <http://kenstenstitusu.tepebasi.bel.tr>.

A total of 315 different individuals participated in the Tepebaşı City Institute User Evaluation Survey to provide their feedback. Of the participants, 50.8% were male and 49.2% were female (Figure 3).

**Figure 3:** *Gender Distribution*

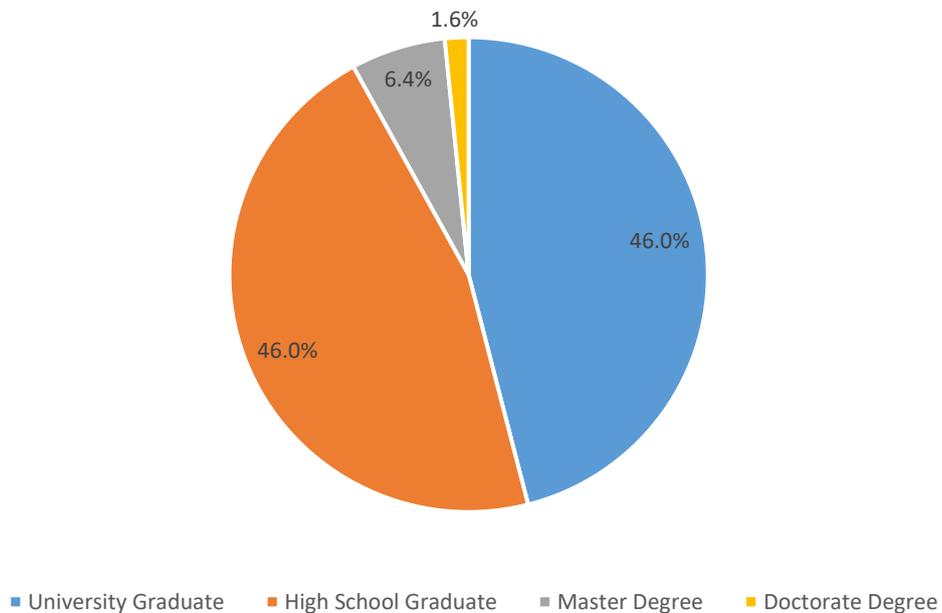
Participants of the Tepebaşı City Institute User Evaluation Survey were asked to indicate their employment status. The employment status of the participants is provided in Figure 4. Accordingly,

38.1% of the participants are employed, 17.5% are not employed, 22.2% are students, and 22.2% are housewives.



**Figure 4:** *Employment Status of the Participants*

The educational status of the participants in the Tepebaşı City Institute User Evaluation Survey is provided in Figure 5. Accordingly, 46% of the participants are university graduates, 46% are high school graduates, 6.4% have a master's degree, and 1.6% have a doctorate degree.



**Figure 5:** *Educational Status of the Participants*

Participants of the Tepebaşı City Institute User Evaluation Survey were asked to state their reasons for registering for the Tepebaşı City Institute's courses. According to the results presented in Figure 6, 98.4% of the participants emphasized that they wanted to increase their personal development and the fact that the courses were free influenced their decision to register.



**Figure 6:** Participants' Enrollment Purposes

Participants of the Tepebaşı City Institute User Evaluation Survey were asked to indicate to what extent they agreed with the opinions given in Table 4 regarding the courses.

**Table 4:** Opinions of the Participants About the Courses

No	Opinion	Agree	Not sure	Not agree
1	Explanations on the purpose, scope and activities of each training are sufficient.	315	0	0
2	The problems arising from the trainings and the website were taken into account by the administrators and solutions were produced.	280	30	5
3	The subjects that I wanted to learn in the training were covered.	260	50	5
4	At the end of the training, my interest in the subjects within the scope of the training increased.	290	20	5
5	At the end of the training, my self-confidence increased in the subjects covered by the training.	290	20	5
6	The examples used throughout the training were very helpful.	265	45	5
7	There was a good balance between theory and practice.	265	45	5
8	Education has contributed to my personal development and my work.	280	35	0
9	The course motivated me to do better.	310	5	

10	Gained new knowledge and skills.	280	35	0
11	The education method and technique are suitable for understanding the subject.	305	10	0
12	The content of the course is suitable for the topic.	285	30	0
13	The language of instruction is understandable.	315	0	0
14	I could easily access the Tepebaşı City Institute website.	315	0	0
15	I could easily register for the Tepebaşı City Institute courses.	315	0	0
16	I could easily find what I was looking for on the Tepebaşı City Institute website.	315	0	0
17	I recommend Tepebaşı City Institute to those around me.	315	0	0
18	I am happy to be enrolled in the Tepebaşı City Institute.	315	0	0
19	I will continue my training at the Tepebaşı City Institute.	315	0	0

#### 4. DISCUSSION and RESULT

Starting from the Village Institutes, which were the savior projects of a period when the population was concentrated in villages, the City Institute Project, realized at a time when the population is concentrated in cities in the modern age, has the potential to offer a robust solution to lifelong learning needs amidst the complex issues of these grey urban areas.

The aim is to develop a city development model that includes all citizens by advancing the courses given in municipal service centers to a level where they are offered both face-to-face and online through computer mediation. The sustainable application content offered to citizens completes the cycle of education, skill, and production. The web application designed in accordance with distance learning approach and the institutes served by the municipality support and constantly interact with each other.

The e-learning system implemented within the scope of the research presents a supportive educational model that will eliminate inequalities in education and provide information for every age group to form a healthy, livable, and sustainable city community. With this model, it becomes possible to:

- Implement the management of education and empowerment,
- Increase the influence of art in all areas of life,
- Provide all citizens with flexible learning and development opportunities,
- Make urban life more collaborative, sharing, and sustainable.

Furthermore, the project is expected to contribute to stakeholders involved in lifelong learning in Türkiye in terms of popularizing lifelong learning, recognizing prior learning, offering educational opportunities to disadvantaged individuals, reducing education costs, expanding access to lifelong learning activities, standardizing educational content, and training educators. Additionally, it's anticipated that the project will contribute to making lifelong learning more systematic in Türkiye, as emphasized in the 2014-2018 Lifelong Learning Strategy and Action Plan, thereby cultivating the workforce needed by the business world, facilitating the lives of citizens by providing education, and contributing to the national economy, social welfare, and scientific accumulation.

Tepebaşı City Institute, developed to offer online training services for local government organizations in Türkiye, serves as a successful model for all similar structures. The first and most important point that needs to be evaluated in future research suggestions is sustainability. Research

should be conducted on what kinds of actions need to be taken, when, and how to ensure the continuity of organizational processes like management, economic autonomy, budget, R&D activities, and technical infrastructure.

Beyond this, there is a need to analyze how the courses can be expanded to meet all the needs of the public from local to global. In this context, projects should be developed on how the training staff can be expanded in coordination with universities and private educational institutions.

In addition to this, in the specific context of the Tepebaşı City Institute, the extent to which open and distance learning services support local government education services and how they offer solutions to the city's educational problems should be researched in the upcoming periods.

### **Declaration of Contribution Rate of Authors and Conflict of Interest Declaration**

The study was prepared with the joint contributions of the authors in a way that does not allow for any conflict of interest.

### **Statement of Support and Acknowledgment**

This research was supported by the Anadolu University Scientific Research Projects Commission under the project number 1606E531 between the years 2017-2019.

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