



## Content analysis of real estate valuation courses taught in the relevant departments of vocational schools in Türkiye

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### Abstract

The value of real estate is used directly or indirectly in many applications. These practices are primarily taxation, expropriation, management of immovables, establishment of rights and similar practices. These practices are carried out by institutions based on the methods defined in the relevant legislation. Real estate valuation is a field that constantly renews itself depending on technical and legal developments. Therefore, more competent valuation experts are needed in the sector. At this point, the importance of the real estate valuation course taught in vocational colleges of universities in order to improve the quality and scope of real estate appraisal education is increasing. Meeting the needs in the sector and training new real estate appraisers depend on the quality of the training provided. In this study; The content analysis of the real estate valuation courses taught in the relevant programs of vocational schools is made, the importance of being up-to-date on the topics covered is revealed, and the place and importance of the education in the field of real estate valuation is emphasized.

## 1. Introduction

The Turkish Language Association (TDK) defines the concept of real estate as “house, field, etc. immovable property, real estate” [1]. According to another definition, real estate; it is the name given as a whole with the land and the buildings on it [2]. It is the general name of immovable property, property, land, field, house, garden. Real estate in the International Valuation Standards (IVS) Book published by the International Valuation Standards Committee (IVSC); Land and everything that is a natural part of the land such as trees, mines, as well as anything made by humans such as buildings and improvement works are defined as the land itself, which is a physical entity, or as artificial structures built on this land. It also defines real estate as anything tangible that can be seen or touched, with all its additions above or below the ground [3].

Real estate valuation in general can be defined as the estimation of the probable value of a real estate, real estate project or the rights and benefits attached to the real estate on the valuation day, based on independent, impartial and objective criteria [4, 5].

Real estate valuation is a multidimensional process that requires examining many factors together. This situation requires the expert to analyze and interpret a complex structure from a technical and legal perspective. The business known as real estate valuation and real estate valuation in the 1980s, today comes to the fore more with the name of real estate valuation. While most of the companies that make real estate valuation work under the name of real estate valuation and consultancy, some of them work under the name of real estate valuation and consultancy. It is necessary to strengthen the technical and legal infrastructure for real estate valuation expertise. For this, universities have important duties [6].

In the field of real estate valuation, which is of great importance for our country in terms of ensuring both economic development and fair taxation, the need to establish a sound and healthy legal, institutional and technical infrastructure has become a necessity. For this, first of all, the policies and standards needed in the field of real

estate valuation should be determined and a legislative infrastructure should be established, and then a well-functioning administrative structure and a technical capacity that is open to modern and technological developments should be built [7].

When international examples are examined, it is seen that countries with good practice in real estate valuation have healthy legislative infrastructures in the field of real estate valuation, both their legislation and the valuation activities are regulated in accordance with International Valuation Standards (UDES) and in accordance with the conditions of their countries [7]. While laws and economic conditions may require some specific [and sometimes limited] practices to be made on a case-by-case basis, the fundamentals of valuation methods and techniques are generally similar worldwide on the basis of IAS [8].

UDES, which is published as a communiqué in Türkiye and tried to be implemented by experts and institutions that make valuations, should be accepted as a framework standard and adapted to the conditions of our country. The new legal and institutional structure should also support this goal. As in all international standard documents, in addition to these issues related to real estate valuation in Türkiye, ethical behavior principles that Licensed Appraisers must comply with must be determined, and continuous public trust should be ensured and protected. Both the parameters affecting the value of the real estate and the standards of the report content, as well as all kinds of issues related to the appraisers should be regulated in accordance with UDES. For this reason, it would be right to benefit from the Turkish Real Estate Valuation Standards (TUGDES) Draft Report study published by TDUB in September 2011 [7, 8].

Although there are many institutions related to real estate valuation in Türkiye, the first institution that comes to mind in this field is the Capital Markets Board (CMB), the most important institution that works on real estate valuation. It was established in 1981 with the Capital Markets Law No. 2499. CMB conducts examinations and conducts many studies on the subject in order to license Appraisers [9, 10]. In Türkiye, some regulations have been made recently regarding the training and licensing of appraisers. According to these regulations, the CMB, in addition to the task of listing real estate appraisal companies, also carries out the activities of issuing "Appraisal Expertise License" in order to ensure that companies can carry out their valuation activities by employing "Valuation Experts" who have sufficient knowledge and experience [9].

Another important recent development in the context of training real estate appraisers was the establishment of the "Turkish Appraisal Experts Association" (TDUB), a professional organization with legal personality as a public institution, on 21.02.2007. In the general assembly of the Association held on 26.05.2010, the elections for the board of directors consisting of seven people and the supervisory board consisting of three people were held, and thus the Union started its activities [10].

Members of TDUB consist of valuation experts who have real estate appraisal expertise license in accordance with the capital market legislation and valuation institutions authorized by the Board. The purpose of TDUB; To fulfill the duties given by law and this status in order to develop the real estate market and real estate valuation activities, to ensure that the members of the Association work with the care and discipline required by the solidarity and valuation activities, to protect the professional interests of the members, to prevent unfair competition, to enlighten and train the members in professional matters [11].

In April 2001, Valuation Experts Association (DUD) was established by professional valuation experts to encourage, develop and disseminate theoretical and practical research in valuation practices and to increase their quality. In November 2002, it was unanimously accepted as a full member to IVSC (International Valuation Standards Council), the United Nations' Valuation body. In addition, DUD maintains its relations with other international institutions such as AI (Appraisal Institute) operating in the USA at the highest level. The Turkish translation of International Valuation Standards prepared by IVSC was completed jointly with DUD [12, 13].

In this study, a general evaluation of the courses on real estate valuation taught in different departments of universities in vocational schools was made and the course contents were analyzed. As a result of the analysis, solution suggestions were presented to increase the quality of education.

The study was conducted in an analysis style within the scope of the curriculum, application methods and criteria of real estate valuation courses taught in different departments of vocational schools. With this study, it is aimed to contribute to the business life after graduation and transitions between universities by renewing the application infrastructure and course curricula in vocational schools of universities providing real estate valuation education in accordance with the real estate valuation sector. It is also important in terms of training valuation personnel suitable for the needs of the sector.

## **2. Material and Method**

First of all, from the guide booklet published by the Higher Education Institution (YÖK) every year, it was researched which university and vocational school had departments such as Map and Cadastre, Land Registry and Cadastre, Real Estate and Real Estate Management. Then, by entering the web pages of the relevant vocational schools, it was checked whether there were courses related to real estate valuation from the course information package pools of the programs. Tables 1-3 contain the names of the courses and related vocational schools.

**Table 1.** Map and cadastre program

University Name	Vocational School Name	Course Name*
Adiyaman	Kahta	Real Estate Valuation
Kocatepe	Uzaktan Eğitim	Real Estate Valuation
Afyon Kocatepe	Emirdağ	Real Estate Valuation
Amasya	Teknik Bilimler	Real Estate Valuation
Hacettepe	Başkent Organize Sanayi Bölgesi Teknik Bilimler	Real Estate Valuation
Akdeniz	Teknik Bilimler	Real Estate Valuation
Çoruh	Artvin	Real Estate Valuation
Balıkesir	Bigadiç	Real Estate Valuation
Mehmet Akif Ersoy	Göhlhisar	Real Estate Valuation
Uludağ	Gemlik Asım K.	Real Estate Valuation
Bursa Uludağ	İznik	Real Estate Valuation
Elâzığ Fırat	Sivrice	Real Estate Valuation
Binali Yıldırım	Meslek Yüksekokulu	Real Estate Valuation
Giresun	Teknik Bilimler	Real Estate Valuation
Isparta Uygulamalı Bilimler	Teknik Bilimler	Real Estate Valuation
Isparta Uygulamalı Bilimler	Uluborlu Selahattin Karasoy	Real Estate Valuation
İstanbul Okan	Meslek Yüksekokulu	Real Estate Valuation
İzmir Dokuz Eylül	İzmir	Real Estate Valuation
Sütçü İmam	Göksun	Real Estate Valuation
Kayseri	Tomarza Mustafa Akıncioğlu	Real Estate Valuation
Ahi Evran	Kaman	Real Estate Valuation
Selçuk	Kadınhanı Faik İçil	Real Estate Valuation
Selçuk	Taşkent	Real Estate Valuation
Selçuk	Hadim	Real Estate Valuation
Selçuk	Güneysınır	Real Estate Valuation
Teknik	Teknik Bilimler	Real Estate Valuation
Turgut Özal	Darende Bekir Ilıcak	Real Estate Valuation
Celal Bayar	Sarıgöl	Real Estate Valuation
Celal Bayar	Köprübaşı	Real Estate Valuation
Artuklu	Savur	Real Estate Valuation
Mersin	Teknik Bilimler	Real Estate Valuation
Sıtkı Koçman	Yatağan	Real Estate Valuation
Samsun	Kavak	Real Estate Valuation
Siirt	Eruh	Real Estate Valuation
Osmaniye Korkut Ata	Osmaniye	Real Estate Valuation
Avrasya	Meslek Yüksekokulu	Real Estate Valuation
Sinop	Boyabat	Real Estate Valuation
Bülent Ecevit	Zonguldak	Real Estate Valuation
Karamanoğlu Mehmet Bey	Teknik Bilimler	Real Estate Valuation
Hakkâri	Çömerik	Real Estate Valuation

**Table 2.** Land registry and cadastre program

University Name	School Name	Course Name*
Ankara Hacı Bayram Veli	Polatlı	Real Estate Financing and Valuation
Niğde Ömer Halis Demir	Bor	Real Estate Valuation I
Aydın Adnan Menderes	Atça	Real Estate Valuation
Manisa Celal Bayar	Sarıgöl	Real Estate Valuation
Mehmet Akif Ersoy	Göhlhisar	Real Estate Valuation
Pamukkale	Çayeli	Real Estate Valuation
Gaziosmanpaşa	Zile	Real Estate Valuation
Bartın	Ulus	Real Estate Valuation
Niğde Ömer Halis Demir	Bor	Real Estate Valuation II
Çorum Hitit	Osmancık Ömer Derindere	Real Estate Valuation
Bitlis Eren	Teknik Bilimler	Real Estate Valuation
Yozgat Bozok	Şefaattli	Real Estate Valuation
Uşak	Sivaslı	Real Estate Valuation
Elâzığ Fırat	Karakoçan	Real Estate Valuation
Dumlupınar	Hisarcık	Real Estate Valuation
Artvin Çoruh	Ardanuç	Real Estate Valuation

**Table 3.** Real estate and real estate management program

University Name	School Name	Course Name*
İstanbul Cerrahpaşa	Sosyal Bilimler	Real Estate Valuation Methods
Kocaeli	Ali Rıza Veziroğlu	Real Estate Valuation Methods
Adana Çukurova	Adana	Real Estate Valuation Techniques
Aydın Adnan Menderes	Yenipazar	Real Estate Valuation
Sakarya Uygulamalı Bilimler	Geyve	Real Estate Valuation Principles
Samsun 19 Mayıs	Havza	Real Estate Valuation Techniques
Denizli Pamukkale	Çivril Atasay Kamer	Real Estate Valuation Techniques

In the [Tables 4-6](#), the European Credit Transfer System (ECTS) credits and course type information of the Map and Cadastre, Land Registry and Cadastre, Real Estate and Property Management programs in the vocational schools of the universities are given. The necessary information was obtained from the current course information package pool of the universities and by e-mails sent to vocational schools or by contacting vocational schools directly. On the other hand, the letters U, Z and S in the tables are used to express the features of the courses in the program in the form of practice, compulsory and optional by using the initials of these words.

**Table 4.** Map and cadastre program ects credits and course type information

University Name	School Name	C	E	T	U	Z	S
		R	C	H			
		E	T	E			
		D	S	O			
		I		R			
		T		Y			
Adıyaman	Kahta	2	3	2	1	-	+
Kocatepe	Uzaktan Eğitim	2	4	2	0	-	+
Afyon Kocatepe	Emirdağ	2	4	2	0	-	+
Amasya	Tekn. Biliml.	2	4	2	0	-	+
Hacettepe	Başkent OSB Teknik Bilimler	2	3	2	0	-	+
Akdeniz	Teknik Bilimler	2	3	2	0	-	+
Çoruh	Artvin	2	2	2	0	+	-
Balıkesir	Bigadiç	2	3	2	0	-	+
Mehmet Akif Ersoy	Göhlisar	2	4	2	0	+	-
Uludağ	Gem. Asım K.	3	3	3	0	+	-
Bursa Uludağ	İzmit	2	3	2	2	+	-
Elâzığ Fırat	Sivrice	2	3	2	2	+	-
Binali Yıldırım	Meslek Yüksekokulu	3	3	3	0	-	+
Giresun	Teknik Bilimler	2	4	2	0	-	+
Isparta Uygulamalı Bilimler	Teknik Bilimler	4	3	4	0	-	+
Isparta Uygulamalı Bilimler	Uluborlu Selahattin Karasoy	2.5	3	2	1	-	+
Okan	Meslek Yüksekokulu	2.5	3	2	1	-	+
Dokuz Eylül	İzmir	3	6	3	0	+	-
Sütçü İmam	Göksun	3	4	3	0	-	+
Kayseri	Tomarza Mustafa Akıncıoğlu	3	3	3	0	-	+
Ahi Evran	Kaman	2	2	2	0	-	+
Selçuk	Kadınhanı Faik İçil	3	3	3	0	-	+
Selçuk	Taşkent	4	4	4	0	-	+
Selçuk	Hadim	4	4	4	0	-	+
Selçuk	Güneysınır	4	4	4	0	-	+
Teknik	Teknik Bilimler	4	4	4	0	-	+
Turgut Özal	Darende Bekir İlicak	4	4	4	0	-	-
Celal Bayar	Sarıgöl	2	3	2	0	-	+
Celal Bayar	Köprübaşı	2	2	2	0	-	+
Artuklu	Savur	2	2	2	0	-	+
Mersin	Teknik Bilimler	3	3	3	0	+	-
Sıtkı Koçman	Yatağan	2	2	2	0	-	+
Samsun	Kavak	2	3	2	0	-	+
Siirt	Eruh	3	4	3	0	+	-
Korkut Ata	Osmaniye	2	4	2	0	+	-
Avrasya	Meslek Yüksekokulu	3	3	2	1	-	+
Sinop	Boyabat	3	3	3	0	-	+
Bülent Ecevit	Zonguldak	2	4	2	0	-	+
Karamanoğlu Mehmet Bey	Teknik Bilimler	3	3	3	0	-	+
Hakkâri	Çömerik	3	3	2	0	-	+

**Table 5.** Land registry and cadastre program ECTS credits and course type information

University Name	School Name	C	E	T	U	Z	S
Ankara Hacı Bayram Veli	Polatlı	2	2	2	0	-	+
Adnan Menderes	Atça	3	3	2	1	-	+
Ömer Halis Demir	Bor	2	2	2	0	+	-
Ömer Halis Demir	Bor	2	2	2	0	+	-
Celal Bayar	Sarıgöl	3	4	3	0	+	-
Mehmet Akif Ersoy	Göhlisar	2	3	2	0	+	-
Pamukkale	Çayeli	2	4	2	0	-	+
Gaziosmanpaşa	Zile	3	3	3	0	-	+
Bartın	Ulus	2	2	2	0	-	+
Çorum Hitit	Osmancık Ömer Derindere	2	3	2	0	-	+
Bitlis Eren	Teknik Bilimler	3	3	3	0	-	+
Yozgat Bozok	Şefaati	3	3	3	0	-	+
Uşak	Sivaslı	2	3	2	0	+	-
Elâzığ Fırat	Karakoçan	2	3	2	0	+	-
Artvin Çoruh	Arduç	3	3	3	0	+	-
Kütahya Dumlupınar	Hisarcık	3	4	3	0	-	+

**Table 6.** Real estate and real estate management program ECTS credits and course type information

University Name	School Name	C	E	T	U	Z	S
İstanbul Cerrahpaşa	Sosyal Bilimler	3	3	3	0	+	-
Adana Çukurova	Adana	3	5	3	1	+	-
Kocaeli	Ali Rıza Veziroğlu	3	3	2	1	+	-
Aydın Adnan Menderes	Yenişehir	3	3	2	1	+	-
Sakarya Uygulamalı Bilimler	Geyve	3	3	2	0	+	-
Denizli Pamukkale	Çivril Atasay Kamer	4	4	4	0	+	-
Samsun 19 Mayıs	Havza	4	7	3	1	+	-

In the Tables 7-9, there are course contents taken from the course information package pool of the universities of the Vocational School programs of Map and Cadastre, Land Registry and Cadastre, Real Estate and Real Estate Management. In the tables, the name of the course, the purpose, the content of the vocational school programs, the source used and the information in which university and vocational school the course is given.

**Table 7.** Course content information in the map and cadastre program

University	Vocational School	Aim	Contents	Source
Adiyaman	Kahta	To teach the basic concepts and methods of real estate valuation and to have sample applications of real estate valuation done.	Value and Price Theories, Value Concepts, Rent Theories, Basic Finance Mathematics, Comparison Method Application, Cost Method Application, Income Method Application, Discounted Cash Flow Method Calculations, Building Production and Cost Calculations, Valuation Process, Functioning of Real Estate Financing Methods, Valuation Standards and Reporting, Valuation Process Application	[3] [4] [14] [15]
Afyon Kocatepe	Uzaktan Eğitim Meslek Yüksekokulu	Teaching the basic concepts of real estate valuation, legislation on real estate valuation, analysis of valuation data and valuation methods.	Introduction to real estate valuation, Valuation in taxation, Valuation in the capital market, Valuation in urban and rural land arrangements, Valuation in expropriation, Analysis of valuation data, Valuation methods: Comparison method, Cost method, Income method, Discounted cash flow method, residual method, Income method	-
Afyon Kocatepe	Emirdağ	To introduce the basic concepts including real estate valuation issues and the application methods of these concepts.	Basic concepts, Purpose and principles of real estate valuation, Principles of real estate valuation, Real estate appraisal process, examinations in real estate appraisal process, Real estate appraisal methods, Factors affecting real estate appraisal, Real estate valuation standards, Real estate valuation reporting, systems in real estate valuation in Turkey, special real estate valuation apps.	-
Amasya	Amasya Technical Sciences	To teach how to evaluate and legal transactions during the purchase and sale of real estate and the housing finance system.	Real Estate Valuation, Concepts and principles related to Property Valuation, Property types, Concepts related to value formation, Property Valuation methods, Numerical applications of property valuation methods, Application of Valuation methods according to property types, Valuation reporting, Expropriation and Tax valuation, Real estate market-Turkey Main problems and dynamics of the real estate sector, Housing Finance resources and market, Mortgage Housing Finance System (MORTGAGE)	[5] [6] [7] [14] [15]
Ankara Hacıtepe	Başkent OSB Technical Sciences	To explain the concepts of immovable property and valuation and to teach valuation techniques related to immovables.	The place of real estate valuation in land management, its importance and its relationship with other applications, the legislation and historical development of real estate valuation in Turkey, the place of the real estate in the land registry. Basic concepts of real estate valuation, Determination of the factors affecting the value in real estate valuation, Real estate valuation methods	[8] [9] [14] [15]

**Table 8.** Course content information in land registry and cadastre program

University	Vocational School	Aim	Contents	Source
Ankara Hacı Bayram Veli	Polatlı	To be able to learn the basic concepts of real estate valuation, real estate valuation legislation, analysis of valuation data and valuation methods	Introduction to Real Estate Appraisal: Basic Concepts, Real Estate Appraisal Process, Peer Comparison Method, Income Method, Cost Method, Valuation Process with Cost Method, Type of Real Estate, Use of Urban Area Where the Real Estate is Located, Features of the Environment, Buyer and Seller Features, Economic Indicators, Speculative Value in Urban Land (Rent), Valuation Standards, International Valuation Standards, Practices for Valuation Standards in Turkey, Real Estate Valuation Reporting, Real Estate Tax, Valuation for Real Estate Tax Purposes, Expropriation, Expropriation Expertise, Valuation for Expropriation Purpose, Land Consolidation Valuation, Valuation for Urban Transformation Purposes, Land, Housing and Office Valuations, Valuation of Agricultural Lands, Easement Appraisal, Goodwill	[14, 15]
Nigde Omer Halis Demir	Bor	To give basic concepts about real estate valuation	Opinions on real estate valuation, Real estate valuation in urban and rural areas, Importance of valuation and its place in our laws, Value concept, valuation methods and value factor relations	[5, 6, 14, 15]
Aydin Adnan Menderes	Atca	To teach real estate valuation, its importance and usage areas, and realization and reporting of valuation studies.	Introduction to real estate valuation, Concepts related to real estate valuation, Importance of valuation and usage areas, Real estate valuation in real estate taxation, Valuation criteria and its effect on value, Methods used in valuation, Methods used in valuation, Comparison and evaluation of methods, 2- and 3-dimensional value maps, Real Estate in Turkey valuation, Real estate valuation in Turkey, Implementation Nominal valuation, Application Valuation reporting	[7, 8, 14, 15]
Manisa Celal Bayar	Sarıgöl	To teach the basic concepts and methods of real estate valuation and to have sample applications of real estate valuation done.	Value and Price Theories, Value Concepts, Rent Theories, Basic Finance Mathematics, Comparison Method Application, Cost Method Application, Income Method Application, Discounted Cash Flow Method Calculations, Building Production and Cost Calculations, Valuation Process, Functioning of Real Estate Financing Methods, Valuation Standards and Reporting, Valuation Process Application	[8, 9, 14, 15]
Burdur Mehmet Akif Ersoy	Göhlisar	To enable students to determine the value of real estate with financial, legislative and technical information.	Introduction to Real Estate Valuation and General Property Concepts, Basic Concepts and Terms of Real Estate Valuation, Real Estate Market and Institutions Overview, Areas Where Real Estate Valuation is Used, Real Estate Appraisal Process and Factors Affecting Valuation, Real Estate Valuation Methods - Peer Comparison Method, Cost Method, Income Reduction (Capitalization Method), Real Estate Valuation Standards and Reporting	[8, 9, 10, 14, 15]

**Table 9.** Course content information in real estate and real estate management program

University	Vocational School	Aim	Contents	Source
Istanbul Cerrahpasa	Social Science	To teach the basic concepts, principles and methods of real estate valuation, to analyze the factors affecting the value of real estate and to gain the ability to estimate the market value of real estate.	Real Estate Market Characteristics, Differences between Value and Price, Valuation Process, What to Do in Land Registry and Municipalities, Cost Approach Technique/Reconstruction Cost- Replacement Cost, Depreciation Calculations, Sales Comparison Method Principles (Housing Valuation), Financial-Physical Adjustments, Income Capitalization Method Principles (Revenue-Generating Property Valuation), Income Method, Calculation of Capitalization Rates, Calculation of Net Operating Income, Land Surplus Value Method, Expropriation and DOP Calculations, Title Deed Samples, Information on the Zoning Plan, Income Capitalization Problems, Cost Calculations (Ministry of Public Works unit Prices ), Precedent Sales Price Collection Process	PowerPoint presentations and valuation lecture notes and SPK exam questions are distributed to students.
Kocaeli	Ali Riza Veziroglu	To understand the basic valuation methods and process related to real estates and to provide reporting using valuation principles and standards.	The valuation process includes basic valuation methods (comparison of sales, cost approach and income capitalization), valuation of residential, land and commercial real estates, reporting standards.	[8] [9] [10] [14] [15]
Adana Cukurova	Adana	Gain knowledge of the valuation process, valuation methods, data collection analysis methods, market analysis of real estate.	Determines the most effective and most efficient use analysis of real estate valuation, Makes real estate and real estate related market analysis, Knows and applies real estate valuation techniques, Demonstrates the concept of value and valuation theoretically, Analyzes real estate valuation calculations, Applies the real estate valuation process, Interprets the Real Estate Valuation Report , Applies sales, cost and income valuation techniques to estimate the value of real estate, Knows reporting standards, Creates the theoretical infrastructure of real estate valuation, Provides information about the legal dimension of real estate valuation, Estimates value using appropriate valuation methods.	[8] [9] [10] [14] [15]
Aydin Adnan Menderes	Yenipazar	Purpose and process of real estate valuation, real estate valuation methods and determination of basic criteria, learning the powers and responsibilities of real estate appraisers	Purpose and scope of real estate assessment, real estate assessment methods, basic criteria to be considered in real estate assessment, cadastral and zoned parcels, valuation methods and application examples of different real estates, especially different building types, and changes in the economic conjuncture and depending on the credit housing sales system, and the reflections of these changes and the authority and responsibilities of the expertise	[10] [14] [15]
Sakarya Uygulamali Bilimler	Geyve	To comprehend the methods that should be applied to determine the price of the real estate.	Value concept, value definitions, types, value of zoned lands, highest and best benefit analysis, valuation of commercial real estates, real estate valuation report	-
Samsun 19 Mayıs	Havza	It covers learning information about the evaluation of immovables.	Introduction to Real Estate Valuation, Factors Affecting the Value of Real Estate and Related Views, Real Estate Valuation and Areas of Use, Place of Real Estate Valuation in Laws, Real Estate Valuation Methods, Sales Comparison Method, Sales Comparison Method, Cost Method, Income Reduction Method	Lecture Notes

### 3. Results

Real estate valuation courses show a similarity of 64% in blue part. In this context, it can be said that the 36% (in yellow part) difference in the course contents is due to the wide scope of the real estate valuation and the course being given within the framework of different purposes (Figure 1). In addition, it can be said that the application methods in universities are different and the course is tried to be shaped according to today's conditions. While creating the graph, the subjects in the content part of the course were obtained as a percentage based on vocational schools.

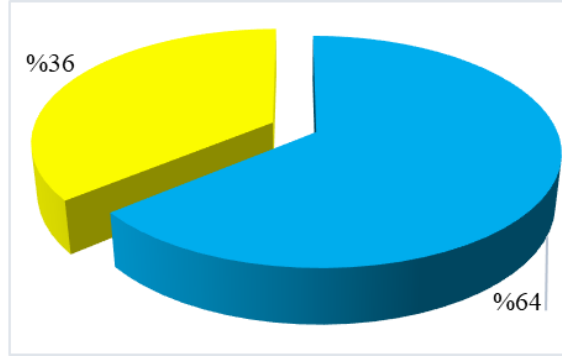


Figure 1. Content of the course similarity difference graph

While creating the similarity graph for the purpose of teaching the course, the percentage ratio was calculated by numbering according to the universities. When the aim of the lesson was examined, it was observed that there was a similarity of about 66% and a difference of 34%. Educational planning of universities is the leading factor in the formation of this difference. As a result of the examinations, it can be said that the aim of the course and its content differ due to the same reasons (Figure 2).

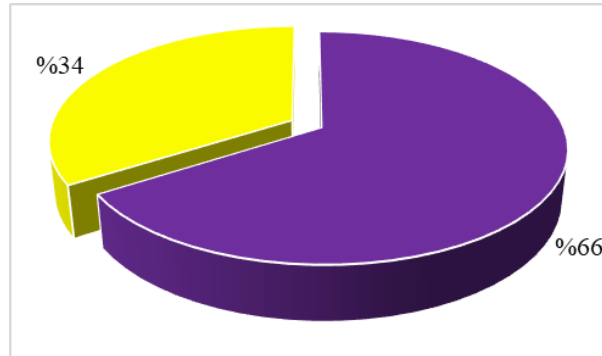


Figure 2. Course objective similarity difference graph

In Figure 3, the graph created as a result of the percentage ratio of the references used by vocational schools in real estate valuation training is given. When the graph is examined, the most preferred reference in vocational schools is "Açlar A., Çağdaş V, Immovable (Real Estate) Valuation for Engineers, Architects and Experts, TMMOB, HKMO Publications". 34% of Vocational Schools use this reference. It can be said that this reference has an important place in real estate valuation education. Apart from this reference, 13% of the lecturers of the related lecturer or the Valuation of Real Estate, Prof. Dr. Erol Köktürk, Dr. Erdal Köktürk uses its reference, and 40% uses other references (Figure 3).

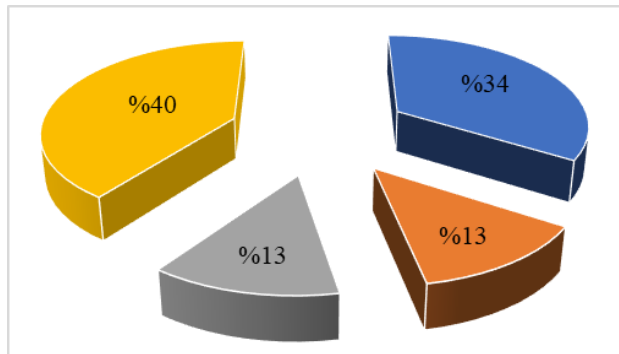


Figure 3. Graph of utilized resources



Figure 4 shows the ECTS information of the real estate valuation course taught in vocational schools. When the ECTS infographic is examined, vocational schools give the real estate valuation course with 2, 3, 4, 5, 6 and 7 ECTS. Approximately 52% of vocational schools approved that the course be given with 3 ECTS. About 28% of the remaining Vocational Schools give with 4 ECTS and 16% with 2 ECTS. 2% of Vocational Schools offer 5, 6 and 7 ECTS.

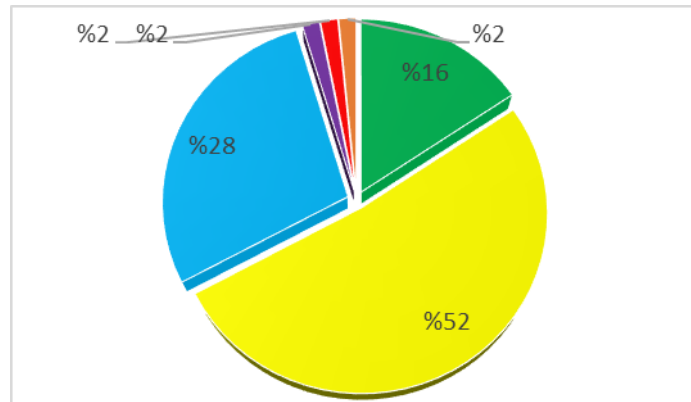


Figure 4. ECTS information graph

Figure 5 shows the credit information of the real estate valuation course in vocational schools. Real estate valuation course is given with 2, 2.5, 3 and 4 credits. About 47% of vocational schools give the real estate valuation course with 2 credits. Approximately 38% of the Vocational Schools offer 3 loans, 13% 4 loans and 3% 2.5 loans.

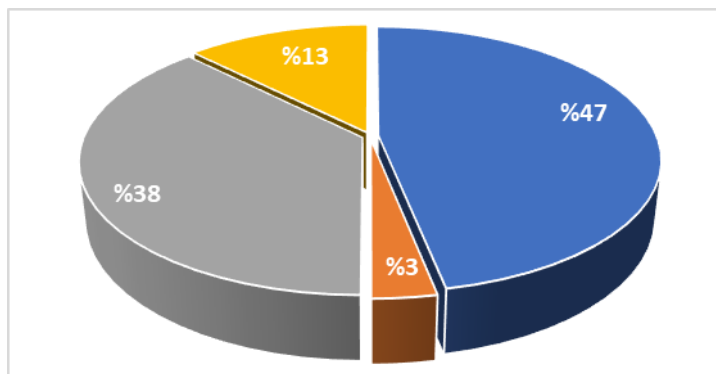


Figure 5. Credit information graph

Theoretical course hour graph of the real estate valuation course is given in Figure 6. When the theoretical course hour graph is examined, 2, 3 and 4 hours are allocated for the real estate valuation course of vocational schools. In approximately 59% of the Vocational Schools, 2 hours of training was deemed sufficient. Approximately 30% of the Vocational Schools provide 3 hours of training and 11% of them 4 hours of training.

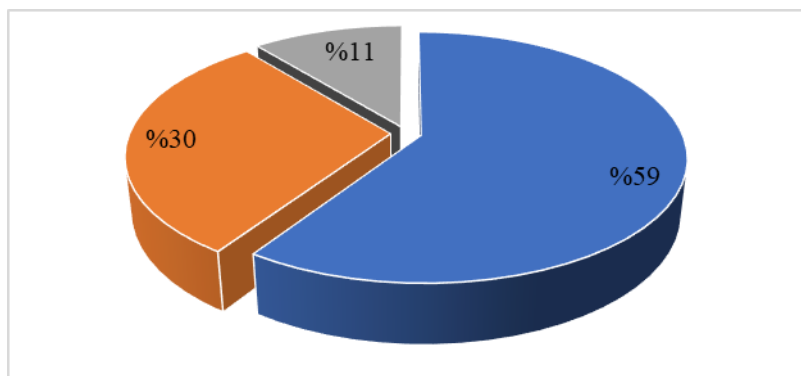


Figure 6. Theoretical lesson hour graph

Figure 7 shows the graph of the practice lesson hour. 83% of vocational schools do not provide practical training. Approximately 14% of vocational schools approved 1-hour application and 3% 2-hour application. As a

matter of fact, this number is very low considering the importance of real estate valuation. Universities can provide a better understanding of the importance of real estate valuation by increasing practical training.

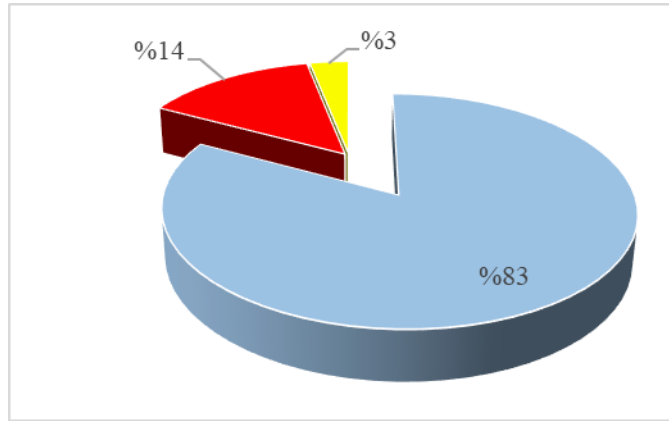


Figure 7. Application class hour graph

In Figure 8, the compulsory elective graph of the course is given. When the graph is examined, vocational schools give the real estate valuation course as an elective at a rate of 64% and a compulsory course at a rate of 36%.

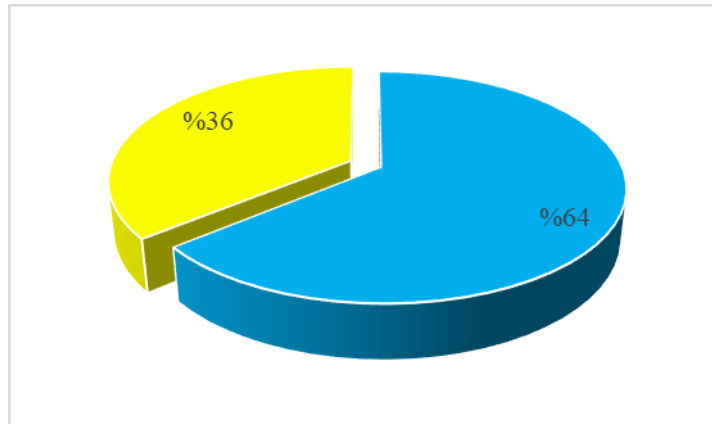


Figure 8. Course type chart

Figure 9 shows the graph formed by calculating the final exam evaluation criteria of vocational schools on a percentage basis. When the graph is examined, it is seen that the final exam of vocational schools affects the success of the course as 30%, 40%, 50%, 60%, 70% and 80%. It is seen that the effect on the final exam is 60% in 86% of vocational schools, 50% in 3% and 30%, 40%, 70% and 80% in 2%. In 5% of vocational schools, data could not be accessed.

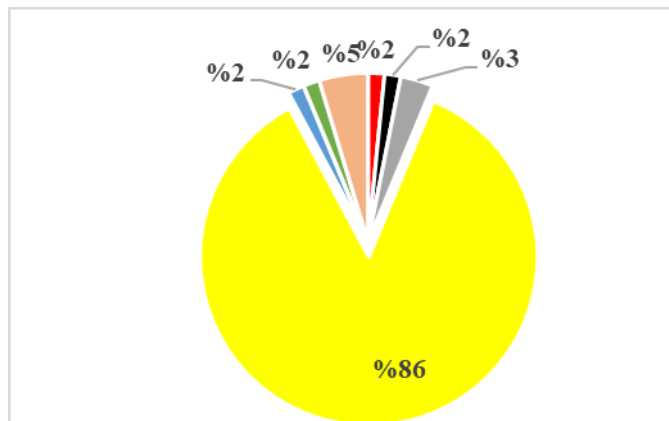


Figure 9. Final evaluation criteria chart

Figure 10 shows the graphic formed by calculating the evaluation criteria for the visa exam of vocational schools on a percentage basis. When the graph is examined, it is seen that the midterm exams of vocational schools

affect the success of the course by 20%, 30% and 40%. In 83% of vocational schools, it is seen that the midterm exam has a 40% effect on the success of the course. It is shown in the graph that it affects 30% in 9% and 20% in 3%. In 5% of vocational schools, data could not be accessed.

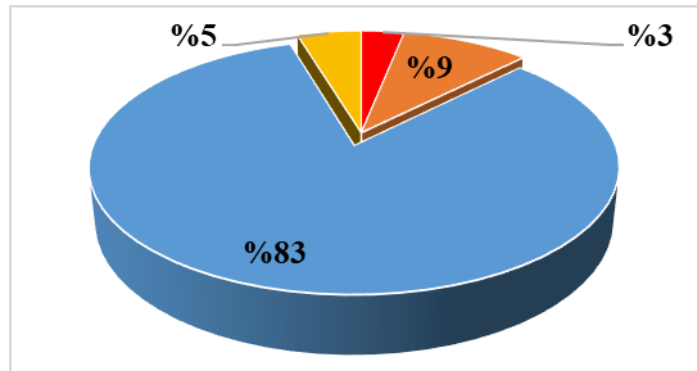


Figure 10. Visa evaluation criteria chart

Figure 11 shows the graph formed by calculating the evaluation criteria of the homework (seminar, project, homework, etc.) given in order to achieve success in the real estate valuation course of vocational schools. Homework is not given in approximately 84% of the Vocational Schools. It can be seen in the graph that it affects approximately 5% of the Vocational Schools by 20%, 3% of them 10% and 30%. In 5% of Vocational Schools, this data could not be accessed.

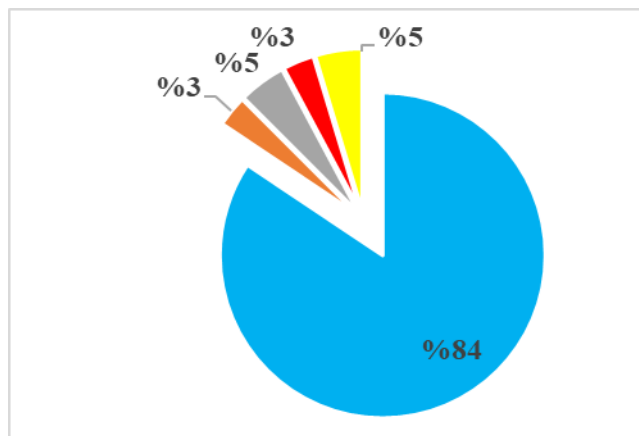


Figure 11. Homework evaluation criteria chart

#### 4. Conclusion

Real estate valuation process, rural area regulation, GIS, advanced mathematics, real estate law, etc. It is a multi-disciplinary study. For this reason, the training provided should be comprehensive. For example, real estate valuation courses should be given especially in the last semester and the infrastructure should be strengthened in this way. In addition, real estate valuation issues are in compliance with the CMB Licensing Exam. In addition to theoretical education, practical education should be given and various projects, seminars, report samples and assignments should be organized in the field of application. Students should be encouraged and informed during training and internships in vocational schools.

Real estate valuation is not a field that can only be explained with the theoretical education given at the university, so a better understanding of the course can be achieved with the field work to be done in the applied education given at the schools. The real estate appraisal course is mostly an elective course in vocational schools. In this context, considering the importance of the course, it should be given as a compulsory course. In addition, in terms of the resources used, the course should be updated in terms of resources. By adding new current resources to the curriculum, the situation in the sector can be understood. Considering the current sector situation, the areas where students can get more information and do research should be increased.

In the field of real estate valuation, there are sample applications from the world and Turkey, how the real estate valuation is made, the relevant process, legal regulations, etc. A website that can be accessed open to everyone, including how the work is done, its definition, purpose and scope, can be used in and outside the classroom. In addition, a platform to be created between universities and a common resource pool can be created and real estate valuation can be discussed here with all its aspects.

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## **Conflicts of interest**

The authors declare no conflicts of interest.

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