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Analysis of Academic Curriculums for Higher Education Institutions (ABD, UK, EU, TR)

(O2. An Academic Curriculum Design for Higher Education Institutions)

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3.1. . Analysis of Academic Curriculums for Higher Education Institutions (ABD, UK, EU, TR)

Research within the scope of the United States (16) Europe (13) England (16) and Turkey (5) Asia (2) a total of 52 animation curriculum at university degree level were examined. A common education plan template (Appendix 2) has been created within the scope of the project for a healthy comparison between the curricula and the curricula of all universities have been converted into this format.

Method

Indicator table were created from 1030 courses in the education plans of the universities included in the research. (Appendix 3). Indicator table is designed to mark main and elective courses in the form of Course Name / University matrix. In addition, the courses in the table are listed by grouping them into main and sub course categories shown in Table 7.

Table 7. Indicator Table Course Categories.

DIGITAL APPLIED COURSES
Illustration / Drawing / Painting / Design, Visual Effect (VFX), Game, Digital Production Digital Photography, Digital Audio, Computational Rendering and Lighting Digital Animation, Programming, Other Digital Lessons, Digital Modeling, Virtual Skeleton and Reinforcement, Digital Storytelling.
TRADITIONAL APPLIED COURSES
Illustration / Drawing / Painting / Design, Art, Game, Production, Photography, Screenwriting, Sound,Stop Motion Animation, Animation, Portfolio, Other Courses
THEORETICAL COURSES
PROCESS MANAGEMENT CONTENT COURSES
WORKSHOP / INTERNSHIP / SEMINAR-BASED COURSES
FOREIGN LANGUAGE
COURSES OF HIGHER EDUCATION INSTITUTION

The problem statement of the research is "How is the distribution of the courses in the animation sections in different countries in terms of type and content?" In line with this main problem, the answers to the following problems were sought and the findings obtained were given respectively.

1. How is the variety of **traditional applied** and **digital applied** courses included in the research in terms of **singular course names**?
2. How is the variety of lessons in the sub-categories of **traditional applied** courses included in the research in terms of **singular course names**?
3. How is the variety of lessons in the sub-categories of **digital applied** courses included in the research in terms of **singular course names**?
4. How is the proportional distribution of **traditional** and **digital applied** courses in animation programs in different countries by **subcategories**?
5. What is the proportional distribution of **traditional** and **digital applied** courses in animation programs in different countries by **country**?
6. How is the distribution of **compulsory and elective** courses in animation programs by country?
7. How is the distribution of the **credits** of the courses included in the animation programs and **compulsory by higher education institutions** by country?
8. What is the distribution of courses and other courses in animation departments in different

countries?
9. How is the distribution of the courses in animation departments in different countries digitally and analogue?
10. How is the theoretical and practical distribution of the courses in the animation departments in different countries?

Results

In this section, findings and interpretations about the sub-problems of the research are included.

a. Traditional and Digital Applied Course Diversity in Terms of Single Course Names

In line with the sub-problem number 1 of the research, the variety of traditional and digital applied courses in terms of the individual course names of the curricula included in the research were investigated. The aim is to determine the variety of lessons according to the categories given in Table 7. The data obtained from 52 training programs within the scope of the research are grouped and frequency values are given in Figure 17.

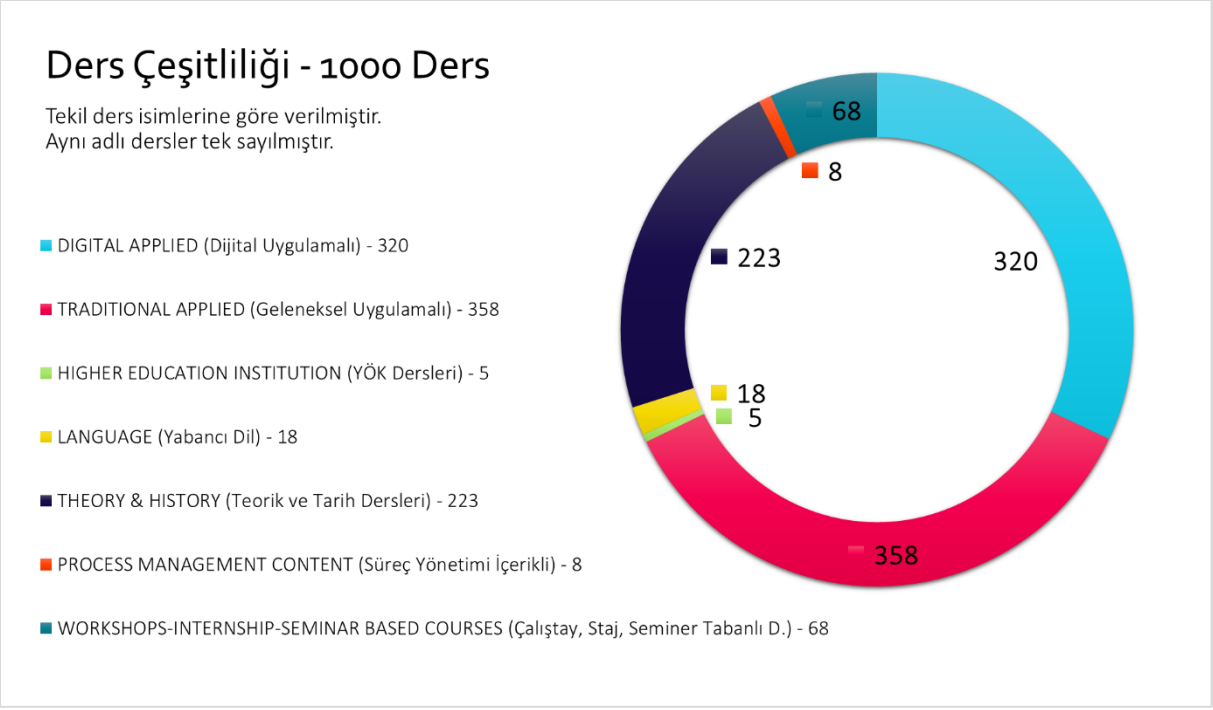

Figure 17. Traditional and Digital Applied Single Course Variety.

When Graph 17 is analyzed, it is seen that 1000 of 1030 courses in total have singular names and courses are divided into 3 main groups in terms of numerical multiplicity. These groups are Traditional applied courses (358), Digital applied courses (320) and Theoretical and history courses (223). The secondary trend belongs to Workshop, Internship and Seminar based courses with 68 courses. The lowest number of courses are Foreign language (18), Process management courses (8) and Higher Education Council courses (5).

b. Course Diversity in Subcategories of Traditional Applied Courses in Terms of Singular Course Names

In accordance with the sub-problem number 2 of the research, the variety of courses in the sub-categories of traditional applied courses was investigated in terms of the individual course names of the curricula included in the research. The aim is to determine the traditional applied course variety according to the sub-categories given in Table 7. The data obtained from 52 training programs within the scope of the research are grouped and frequency values are given in Figure 18.

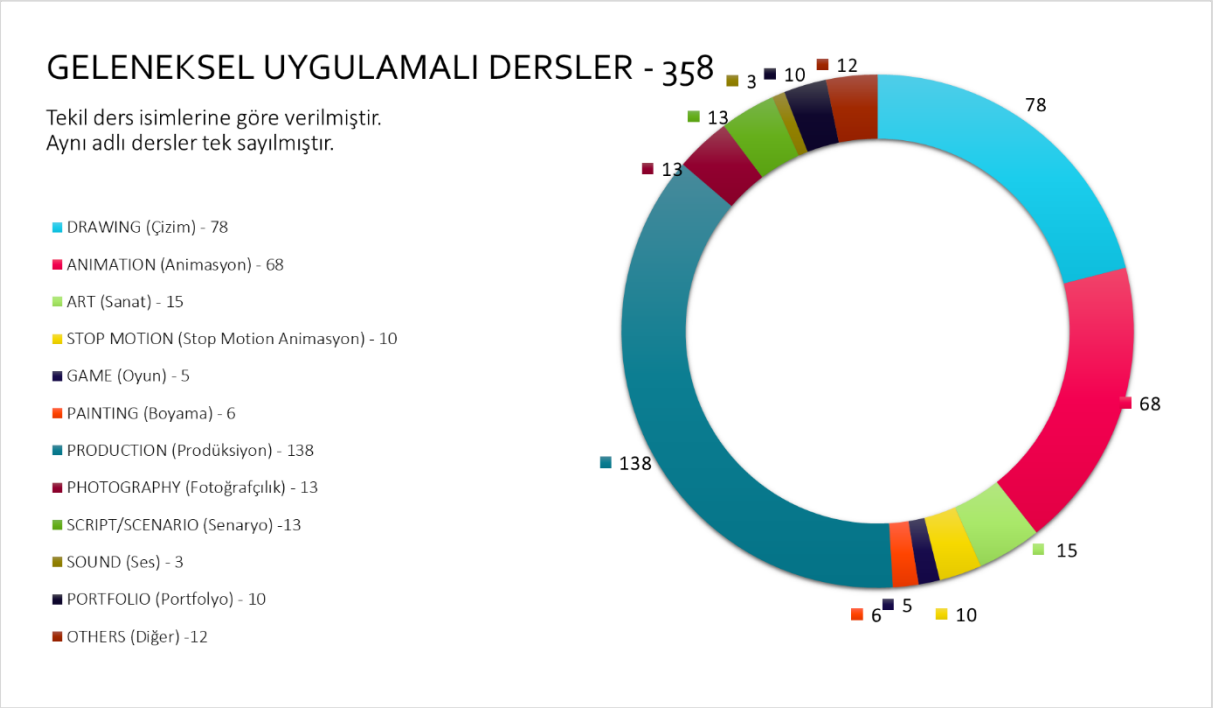

Figure 18. Traditional Applied Singular Subcategory Course Diversity

When Graph 18 is analyzed, it is seen that there are 12 sub-categories in total, and production courses are the sub-categories with the highest number of courses (138) among traditional applied courses (358), followed by Drawing courses (78) and Animation courses (68). Lessons in other sub-categories are low in the 3-15 band.

c. Course Diversity in Subcategories of Digital Applied Courses in Terms of Singular Course Names

In accordance with the sub-problem number 3 of the research, the variety of courses in the sub-categories of digital applied courses was investigated in terms of the individual course names of the curricula included in the research. The aim is to determine the digital applied course variety according to the sub-categories given in Table 7. The data obtained from 52 training programs within the scope of the research are grouped and frequency values are given in Figure 19.

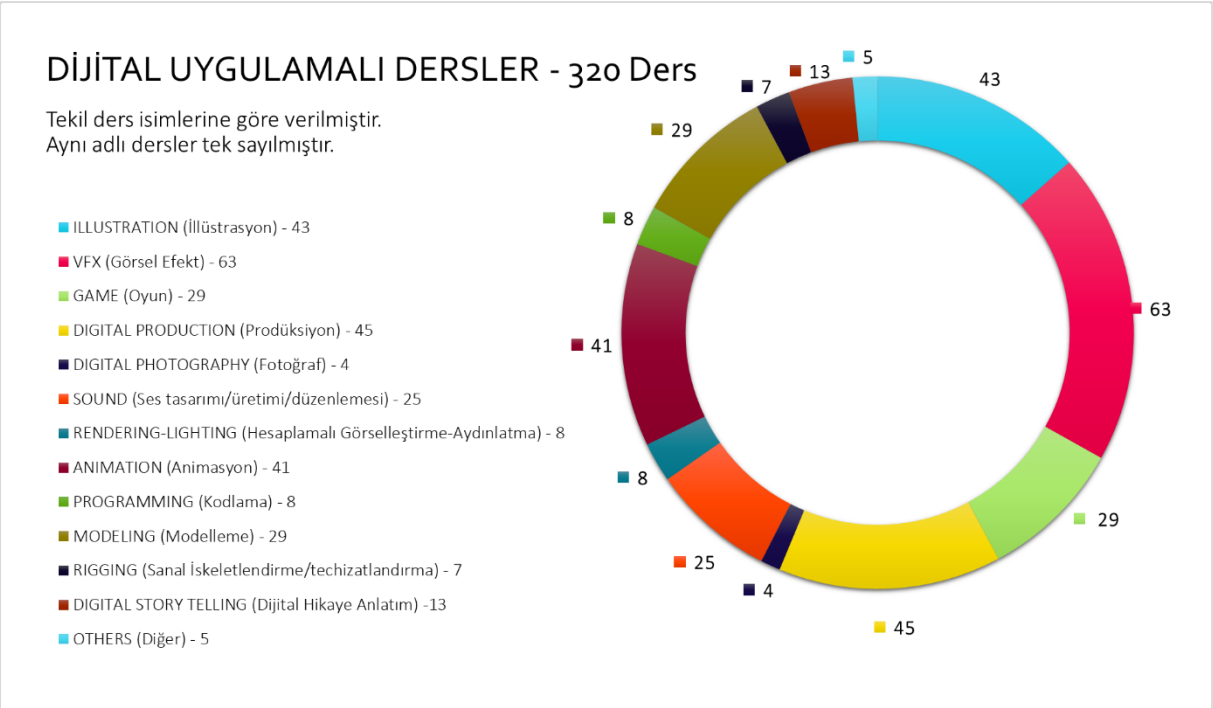

Figure 19. Digital Applied Singular Subcategory Course Diversity.

When Figure 19 is analyzed, it is observed that there are 13 subcategories in total and a more balanced distribution for digital applied courses compared to the traditional course distribution in Graph 18. Visual Effect courses are the sub-categories with the most number of courses (63) in digital applied courses (320), it is Digital production (45), Digital illustration (43), Animation (41), Game (29), Modeling (29), It is observed that the sound design-production-arrangement (25) courses are followed. Lessons in other sub-categories are low in the 4-13 band.

d. What are the Proportional Distributions of Traditional and Digital Applied Courses According to Subcategories?

In accordance with the sub-problem number 4 of the research, the distribution of the courses in the subcategories of the traditional and digital applied courses of the curricula were included in the research. The aim is to determine the distribution of traditional and digital applied courses according to the sub-categories given in Table 4 on the basis of countries. The data obtained from 52 training programs within the scope of the research are grouped and their frequencies and proportional values are given in Table 8.

Table 8. Traditional Applied Courses

	USA	**ENGLAND**	**EUROPE**	**TURKEY**
Illustration / Drawing / Painting / Design	**47**	**16**	**34**	**40**
	% 26,7	**% 15,3**	**% 25,5**	**% 44,9**
Art	5	6	6	4
	% 2,8	% 5,7	% 4,5	% 4,4
Game	4	1	1	0
	% 2,2	% 0,9	% 7,5	% 0
Production	**58**	**55**	**40**	**14**

	% 32,9	**% 52,8**	**% 30**	**% 15,7**
Photography	4	1	6	5
	% 2,2	% 0,9	% 4,5	% 5,6
Sound Design	0	1	2	0
	% 0	% 0,9	% 1,5	% 0
Stop – Motion	3	1	5	3
	% 1,7	% 0,9	% 3,75	% 3,3
Animation	**34**	**22**	**27**	**16**
	% 19,3	**% 21,1**	**% 20,3**	**% 17,9**
Portfolio	6	1	2	2
	% 3,4	% 0,9	% 1,5	% 2,2
Other Courses	8	0	4	1
	% 4,5	% 0	% 3	% 1,1
Toplam	**176**	**104**	**133**	**89**

When Table 8 is examined, it is seen that the highest trends for traditional applied courses in 10 sub-categories are in Production, Illustration / Drawing / Painting / Design and Animation lessons. When production course of looking at the rate at which occupy space in the program according to the country of England (52.8%) has the highest class, the second-ranked United States (32.9%) and Europe (30%) to have close rate, it ranked third in the case of Turkey (15.7%), this ratio is approximately half of the USA and Europe. Illustration / Drawing / Painting / Design course, if the distribution in Turkey (44.9%) has the highest class, second in the US (26.7%) and Europe (25.5%) to have close rate, ranked third in the UK ' On the other hand, (15.3%) can be said to have less than 10% lesson than the closest value. For animation lesson rates, it is seen that all country programs have approximate rates in the 17.9% - 21.1% band.

Tablo 9. Digital Applied Courses

	USA	**ENGLAND**	**EUROPE**	**TURKEY**
Digital Illustration / Drawing / Painting / Design	8	7	**24**	**10**
	% 7,0	% 9,2	**% 16,7**	**% 14,7**
Visual Effect (VFX)	**22**	**14**	**29**	**15**
	% 19,4	**% 18,4**	**% 20,2**	**% 22**
Digital Game	7	6	11	9
	% 6,19	% 7,8	% 7,6	% 13,2
Digital Production	5	**27**	**17**	3
	% 4,4	**% 35,5**	**% 11,8**	% 4,4
Digital Photography	3	0	0	0
	% 2,6	% 0	% 0	% 0
Digital Sound Design etc.	11	3	10	6
	% 9,7	% 3,9	% 6,9	% 8,8
Computational Rendering and Lighting	3	2	3	2
	% 2,6	% 2,6	% 2,0	% 2,9
Digital Animation	**20**	**10**	**15**	**14**
	% 17,6	**% 13,1**	**% 10,4**	**% 20,5**
Programming	2	1	3	1
	% 1,7	% 1,3	% 2,0	% 1,4
Digital Modeling	**15**	2	8	**7**

		% 13,2	% 2,6	% 5,5	**% 10,2**
Virtual Skeleton and Reinforcement (Rig)		2	2	5	0
		% 1,7	% 2,6	% 3,4	% 0
Digital Storytelling		7	1	8	0
		% 6,1	% 1,3	% 5,5	% 0
Other Digital Courses		1	0	2	1
		% 0,8	% 0	% 1,3	% 1,4
	Toplam	**176**	**104**	**133**	**89**

When Table 9 is examined, it is seen that the highest trends common to digital applied courses in 13 sub-categories in total are in Visual Effect (VFX) and Animation courses. Visual Effects (VFX) courses in the United States (19.4%), the UK (18.4%), Europe (20.2) and Turkey (22%) is seen to take place in almost equal proportions in the program. Digital Animation courses as well as trends in US higher secondary (17.6%), the UK (13.1%), Europe (10.4) and Turkey (20.5%) shows that the rate of take up space in the program. In addition, Digital Illustration / Drawing / Painting / Design course for Europe (16.7%) and Turkey (14.7%) is higher but below 10% in the US and UK. A similar situation in the Digital Production course, the US (4.4%) and Turkey (4.4%), while the lowest rate, the UK (35.5%) and Europe (11.8%) applies favor. . Digital Modeling course for the US (13.2%) and Turkey (10.2%) rates are high, but the UK (2.6%) and Europe (5.5%) rates appear to be low. Moreover, when examined in terms of homogeneity column in the table shows the distribution of course is the most heterogeneous distribution of Turkey.

e. How is the proportional distribution of traditional and digital applied courses in animation programs by country?

Proportional distributions of traditional and digital applied courses of the curricula included in the study were investigated in line with the sub-problem number 5 of the research. The aim is to determine the traditional and digital applied course distributions on the basis of countries. The data obtained from 52 training programs within the scope of the research are grouped and their percentage values are given in Figure 20.

When Figure 20 is examined, it is seen that the traditional applied animation courses (61.8%) are almost half more in the content of animation education programs implemented in the USA than in digital based animation courses (38.2%). United Kingdom and Turkey have also observed that the training program is applied in the conventional way more practical courses are similar in both countries compared to digital-based courses.This ratios of 13.4% for Turkey, and the United Kingdom to 15.6% in favor of the traditional courses are different. Unlike other country programs, the ratio of digital applied courses (51.9%) to traditional applied courses (48.1%) is slightly higher in the course distributions in Europe. It was concluded that serious differences have coverage even rate a finding that contrasts with the show configuration of Europe and America and Turkey lesson content.

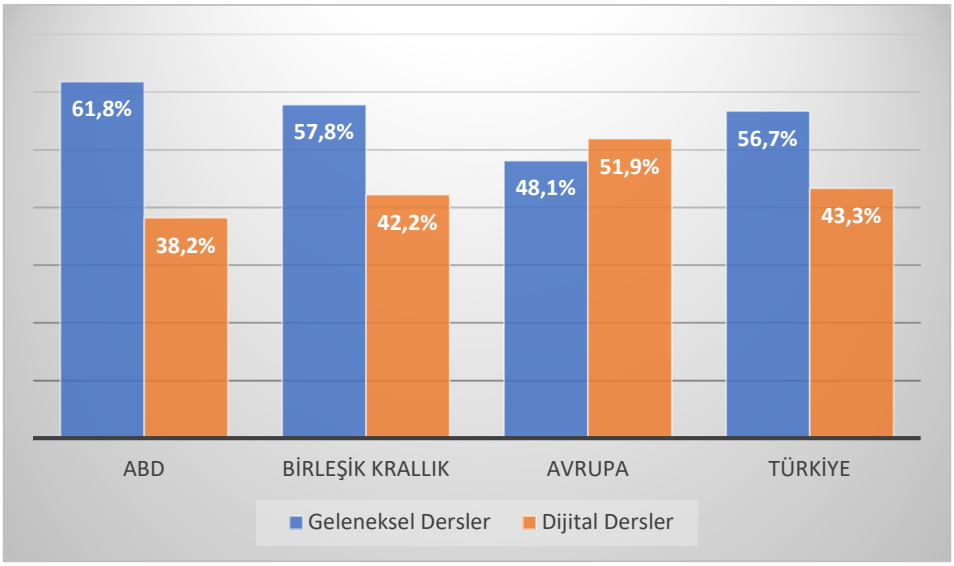

Figure 20. Distribution of Traditional and Digital Applied courses by country.

f. How is the Distribution of the Mandatory and Optional Courses in the Animation Programs by Country?

Proportional distributions of compulsory and elective courses according to countries were investigated in line with the sub-problem number 6 of the research. The aim is to determine the compulsory and elective course distributions on the basis of countries. The data obtained from 52 training programs within the scope of the research are grouped and their percentage values are given in Figure 21.

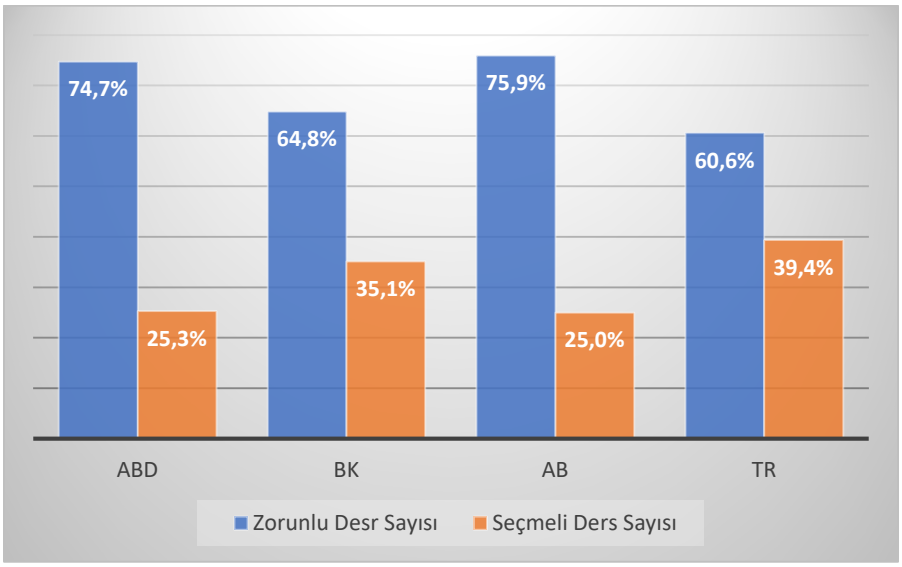

Figure 21. Distribution of Compulsory and Elective Courses by Country.

When Figure 21 is analyzed, it is seen that compulsory courses are higher in all country programs than elective courses. This proportion America (49.4%) and Europe (50.8%) for the curriculum and the United Kingdom (29.6%) and Turkey (21.2%) have noticed in approximately the same. In other words, when we look at the findings of the USA and the European Union, it can be said that the compulsory and elective course distribution rates and numbers are quite similar and almost equal. It said a similar situation in the United Kingdom and Turkey, but the boundaries of the United Kingdom located

mandatory course work in educational institutions in Turkey, according seems to be a little bit more. To sum up, it has been reached that there is a structural similarity between USA - EU and BK - TR.

g. What is the Distribution of the Credits of the Courses in the Animation Programs Required by Higher Education Institutions by Countries?

In line with the sub-problem number 7 of the research, the distribution of the credits of the courses required by the higher education institutions of the curricula included in the research was searched by country. The aim is to determine the ratio of compulsory course credits to total credits. The data from 52 training programs within the scope of the research are grouped and the number of loans is given in Figure 22.

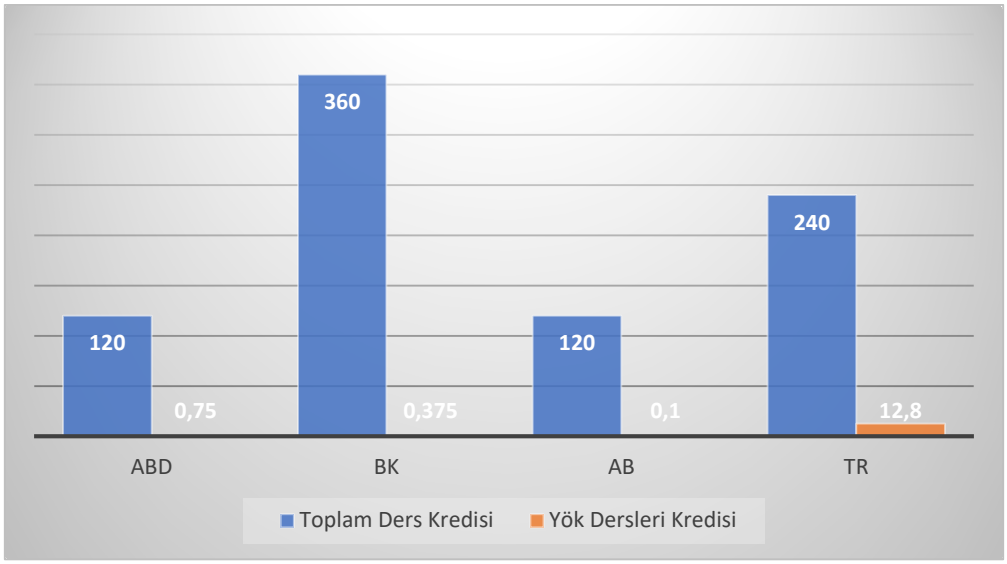

Figure 22. The ratio of the compulsory course credits of the Higher Education Council to total credits.

Compulsory higher education institutions determined the course of the terms covered by l credits in the curriculum by country Turkey (12.8) have the highest class, the second row, the United Kingdom (0.37), USA (0.75) and the last row, the European credit amount (0, 1). According to these data, there is a serious difference and distinction between other designated areas with Turkey. Even with the nearest UK countries, there is a difference of 12.4. This ratio shows an average change of 0.3 among the remaining 3 regions.

h. How are the rates of field courses and other courses in the animation programs distributed by country?

In line with the sub-problem number 8 of the research, the field courses in the curriculum included in the research and the proportional distribution of other courses by countries were investigated. The aim is to determine the ratio of animation courses to other courses. The data from 52 training programs within the scope of the research are grouped and the number of loans is given in Figure 23.

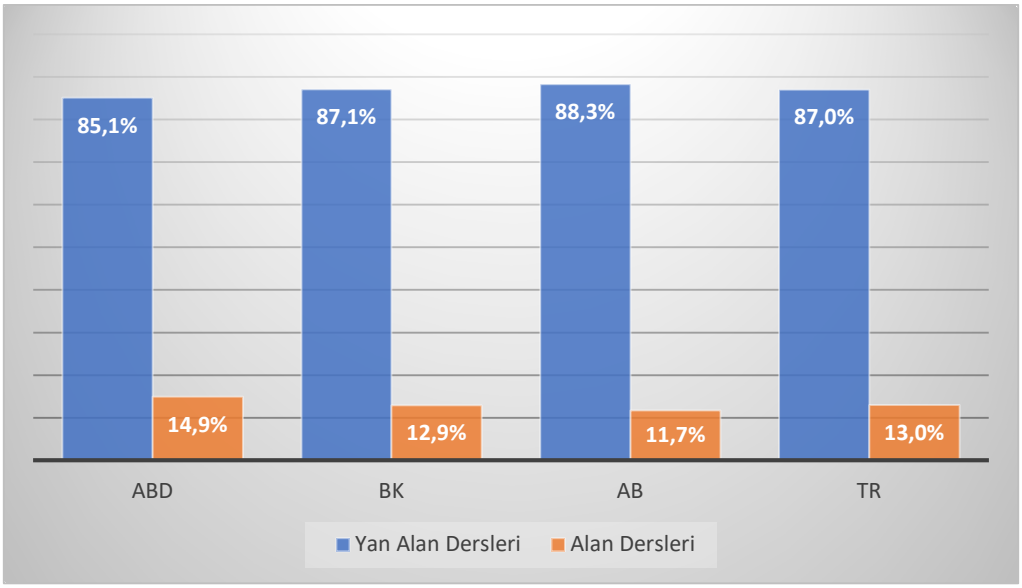

Figure 23. Distribution of field courses and other courses by country.

Field courses that are directly related to animation in all of the regions mentioned in the study are at a very low level compared to the side field courses that are not related to animation or that are not in direct contact with animation. In this title, all of the courses that are assumed to be related to animation consist directly of animation and animation production courses. It covers all other courses that are interactive, theoretical and practical, with the title of subsidiary courses and the concept of animation and animation education.

i. The distribution of the ratio of all courses in the animation programs according to digital and traditional status by country.

In line with the sub-problem number 9 of the research, the proportional distribution of all the courses in the curricula included in the research were investigated according to their digital and traditional status. The aim here is to determine the Digital and Traditional course rates among all courses in the programs. The data from 52 training programs within the scope of the research are grouped and the number of loans is given in Figure 24.

When reference is made to the produced indicator table, it can be seen that 41 of the courses that can be counted as animation courses are digital-based and 68 are analog-based. There are 109 animation courses in total through the data obtained. In the graphic above, the percentage distribution of these courses by regions is given. In the light of the research, it seems that the courses based on traditional methods in all regions are more than digital animation courses with innovative technologies. At this point, it was observed that USA and TR course curricula were close in percentage. The highest difference between the Digital and Analogue courses is observed in the UK curricula with almost one-half percent, while the closest percent is in the curricula of EU countries with a rate of 43.5% - 56.7%.

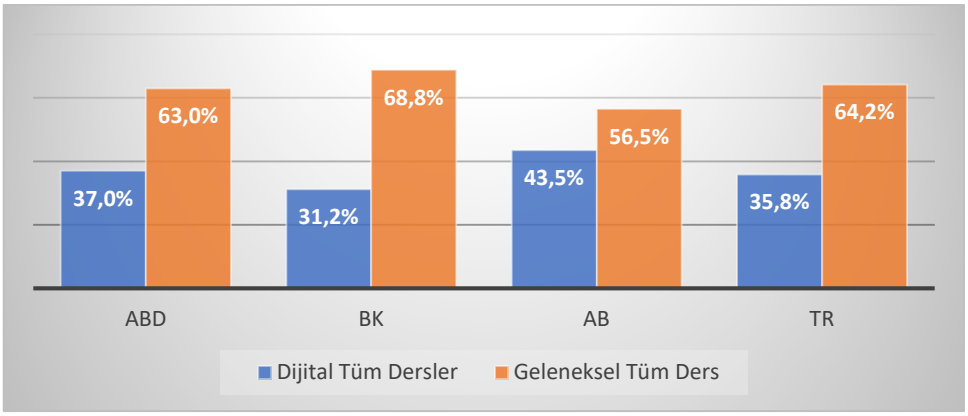

Figure 24. The distribution of the ratio of all courses according to digital and traditional status by country.

Result

Although the courses have individual names, it has been seen that many courses with similar content are included in the programs with minor name differences. In addition, lessons of the same name have been found to have different contents. In light of the examined programs, it is seen that the courses in animation education are divided into 3 main groups in terms of numerical multiplicity. These groups are grouped as Traditional applied courses (358), Digital applied courses (320), Theoretical and history courses (223). When the ranking continues, it belongs to Workshop, Internship and Seminar based courses with 68 courses. The lowest number of courses are Foreign language (18), Process management courses (8) and Higher education institution courses. Considering the proportional distribution of Traditional and Digital Applied courses in the research universe, it is concluded that Traditional Applied courses are proportionally more. While this situation is encountered with the proportional excess of traditional based courses in the USA, TR, UK, it is concluded that there are very few digital applied courses in the European Union. Considering the distribution of elective and compulsory courses, compulsory subject courses have proportionally superior to elective courses in all regions. When the distribution of compulsory courses determined by the higher education institutions of the regions according to their credits is analyzed, it is obtained that the course contents and credits in our country are quite above all other regions. Finally, it seems that the courses based on traditional methods in all regions are more than digital animation courses with innovative technologies.