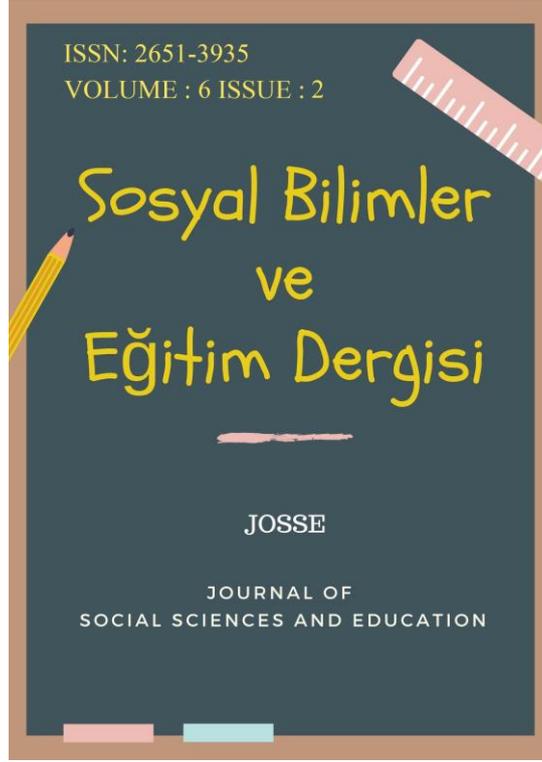


JOURNAL OF SOCIAL SCIENCES AND EDUCATION (JOSSE)



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Investigation of the Teachers' Curriculum Adaptation Patterns

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Article Type: Research Article

Received: 25.08.2023

Revision received: 3.09.2023

Accepted: 23.10.2023

Published online: 25.10.2023

Citation: Karakuyu, A. (2023). Investigation of the teachers' curriculum adaptation patterns. *Journal of Social Sciences and Education*, 6(2), 297-324.

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Abstract

Teachers, due to various reasons, make changes and adjustments to the official curriculum while implementing their teaching programs, which is referred to as curriculum adaptation. This study aimed to examine teachers' curriculum adaptation patterns. The study was conducted using a quantitative research approach through the survey method. The study group consisted of 473 teachers determined through a convenience sampling method. Data were collected using the Curriculum Adaptation Patterns Scale. Data analysis included percentages, frequencies, means, independent t-tests, one-way analysis of variance, Kruskal-Wallis, and Post-Hoc analyses. According to the findings of the research, teachers' curriculum adaptation levels were a moderate level. For the total mean score, there were no significant differences based on gender, in-service training, level of education, and the socio-economic level of the region where the school is located variables. However, there were significant differences based on the year of work experience for those with 8-15 years of experience, the type of school where they work (primary and secondary schools), the place of employment (working in districts), the faculty of graduation (education and other faculties), and the weekly teaching hours variable for those with 0-15 hours and 26 hours and more. Significant differences were determined in favor of those who received 86-100 according to the KPSS educational sciences score of the teachers, and 86-100 according to the KPSS field exam, and those who were assigned before the field exam.

Keywords: Curriculum adaptation, curriculum, teacher

Research Article

Received: 25.08.2023
Revision received:
3.09.2023
Accepted: 23.10.2023
Published online:
25.10.2023

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Introduction

Education is a system. This system consists of input, process, and output components. In order for the system to function systematically, effectively, successfully, and under control, there is a need educational and teaching programs. These programs serve as guiding principles for teachers, students, and other stakeholders within the education system.

Curriculum is defined as the process and content by which a school is responsible for and controls the students' acquisition of knowledge, values, skills, and attitudes (Doll, 1986). Curriculums, encompass all educational activities related to students while instructional programs specifically cover educational activities related to a particular subject. In this sense, curriculum has a broader scope compared to instructional programs.

In Türkiye, curriculums are prepared by the Republic of Türkiye Ministry of National Education. Due to variations in teachers' conditions, the official programs developed by the Board can differ in implementation. Consequently, teachers can make adaptations such as extending revising, and omitting within the official curriculum (Bümen and Yazıcılar, 2020). The concept of curriculum adaptation has gained prominence, particularly in recent years, due to reasons such as the central role of teachers in curriculum development, school-based curriculum development, and reflective practices (Eryaman and Riedler, 2010).

Curriculum adaptation refers to the significant modifications made by teachers to the previously established official curriculum, encompassing its structure, content, activities, methods, and techniques (Drake and Sherin, 2006; Sherin and Drake, 2009). Adaptation involves interventions by teachers aimed at improving the learning process by addressing certain negative or deficient aspects of the curriculum through actions like skipping, omitting, or adding elements (Çeliker Ercan, 2019). Curriculum adaptation can be described as the process where teachers, in their role as implementers of the curriculum, make adjustments while considering factors such as the school, students, subject, and their own experiences and expertise.

The process of adaptation occurs in three stages: before instruction, during instruction, and after instruction. Adaptations made before instruction involve adjustments to lesson plans, activities, methods, techniques, materials, etc., considering the characteristics of the student group and the school, all for the purpose of preparing for the class. Adaptations made during instruction refer to the modifications teachers make during the class, going beyond their original lesson plans based on the reactions of the students and the learning process.

Adaptations made after instruction involve evaluation based on the data collected at the end of a lesson, unit, or period. These adaptations serve as preparation for the next class, unit, or period (Yazıcılar, 2016).

Teachers make adaptations in curriculum for various reasons. Teachers' thoughts, beliefs, and attitudes towards the curriculum significantly impact their adaptation to the program (Li and Harfitt, 2017; Parson et al., 2018). Similarly, students' interests, needs, and differences also influence teachers' adaptations to the curriculum (Akbulut Taş, 2022; Li and Harfitt, 2017; Yazıcılar and Bümen, 2019). Teachers' professional competence can also lead to positive or negative changes in curriculum adaptations (İlhan, 2022). Another influential factor in curriculum adaptation is the school context and educational policies (Burkhauser and Lesaux, 2017; İlhan, 2022; Bümen and Yazıcılar, 2020). Furthermore, factors such as lack of equal opportunities, parental expectations, socio-economic characteristics, and academic exams can also prompt teachers to make adaptations to instructional programs.

In the international literature, Li and Harfitt (2017 and 2018) have conducted a greater number of studies on teachers' forms of curriculum adaptation. Li and Harfitt suggested that curriculum adaptation can take the forms of modifying plans, reorganizing or restructuring, omitting, adding, and creating. Modifying plans refers to altering the timing of instruction from the originally planned schedule. Reorganizing or restructuring involves teachers making changes to content, activities, and materials. Omitting entails skipping certain content in the curriculum. Adding refers to teachers introducing additional materials to facilitate learning. Creating involves teachers generating tasks or assignments that differ from the official curriculum. In the national literature, Bümen and Yazıcılar (2020) expressed patterns of adaptation as omitting, extending, and replacing with something new. Omitting refers to skipping a planned part of a lesson. Extending involves teachers introducing additional materials, creating different activities, adding learning outcomes that are not present in the official curriculum, and subsequently adding content. Replacing with something new entails teachers making changes in terms of duration, sequence, activities, and materials related to the topics.

The lack of active involvement of teachers in the development or revision processes of curricula can lead to certain changes and adjustments when written programs are put into practice (Bümen, 2019). Examining teachers' patterns of curriculum adaptation is essential. This is because while some adaptations can be appropriate and successful, others might be detrimental and disruptive (Troyer, 2019). There is a limited number of studies in the

literature examining teachers' curriculum adaptations. According to demographic variables, there are studies conducted with mathematics curriculum (Yazıcılar, 2016) and secondary school teachers (İlhan, 2020). In this study, it has been tried to contribute to the literature by including many demographic variables that can affect the adaptation processes of teachers from all school types and branches. In this context, the study aims to investigate the level of teachers' curriculum adaptation patterns and whether they exhibit significant differences based on certain demographic variables. Accordingly, the study seeks to address the following questions.

Problem Statement

What is the level of teachers' curriculum adaptation patterns, and do teachers' curriculum adaptation patterns exhibit significant differences based on certain demographic variables?

Sub-problems

1. What are the levels of teachers' curriculum adaptation patterns?
2. Do teachers' curriculum adaptation levels exhibit significant differences based on gender?
3. Do teachers' curriculum adaptation levels exhibit significant differences based on year of seniority?
4. Do teachers' curriculum adaptation levels exhibit significant differences based on the faculty from which they graduated?
5. Do teachers' curriculum adaptation levels exhibit significant differences based on the type of school where they work?
6. Do teachers' curriculum adaptation levels exhibit significant differences based on their place of work?
7. Do teachers' curriculum adaptation levels exhibit significant differences based on their participation in in-service training?
8. Do teachers' curriculum adaptation levels exhibit significant differences based on their weekly teaching hours?
9. Do teachers' curriculum adaptation levels exhibit significant differences based on their education level?

10. Do teachers' curriculum adaptation levels exhibit significant differences based on the type of school where they work?
11. Do teachers' curriculum adaptation levels exhibit significant differences based on their KPSS education science scores?
12. Do teachers' curriculum adaptation levels exhibit significant differences based on their KPSS subject exam scores?

Method

Model

In this study, a survey method has been utilized to determine the level of teachers' curriculum adaptation patterns and to examine them based on certain variables. The survey method involves numerically describing the opinions, thoughts, tendencies, attitudes, and concerns of a sample group selected from the population on a particular subject (Creswell, 2017). With the measurement tool determined within the scope of the study, the data were obtained online from volunteer participants.

Sample and Population

The study group of the research consists of 473 teachers who were selected through convenience sampling and voluntarily participated in the study. The convenience sampling technique, particularly used in human assistance research, is chosen due to its practicality, ease of access by the researcher, and economic advantages (Monette, Sullivan, & Dejong, 1990). Demographic characteristics of the participants are presented in Table 1.

Table 1

Demographic Data of the Participants

Variable	Group	f	%
Gender	Female	367	77.6
	Male	106	22.4
Year of Work Experience	0-7 years	66	14.0
	8-15 years	232	49.0
	16-25 years	145	30.7
	26 and more	30	6.3
The worked school type	Primary School	219	46.3
	Secondary School	148	31.3

Socio-economic level of the region where the school is located	High School	106	22.4
	Low	100	21.1
	Moderate	351	74.2
	High	22	4.7
Education Level	Graduate	371	78.4
	Post-graduate	102	21.6
Place of employment	Village-town	88	18.6
	Center of District	189	40.0
	Center of Province	196	41.4
In-service training related to the curriculum	Yes	331	70.0
	No	142	30.0
Faculty of Graduation	Education	368	77.8
	Faculty of Science and Literature	71	15.0
	Other	34	7.2
Weekly working hours	0-15 hours	71	15.0
	16-25 hours	143	30.2
	26 and above	259	54.8
KPSS education science test scores	0-75 point	72	15.2
	76-85 point	264	55.8
	86-100 point	90	19.0
	I was appointed before the KPSS.	47	9.9
KPSS field exam test scores	0-75 point	55	11.6
	76-85 point	141	29.8
	86-100 point	55	11.6
	I was appointed before the subject exam.	222	46.9

Data Collection Tool

In the research, data were collected using the Curriculum Adaptation Patterns Scale developed by Yazıcılar Nalbantoğlu, Bümen, and Uslu (2021). The scale is a 5-point Likert scale consisting of 20 items, 3 factors. The factors of the scale are “extending,” “omitting,” and “replacing or revising.” The items ranged between 1 to 5 as never, rarely, occasionally, frequently, and always. The reliability coefficients for the omitting, extending, and replacing or revising factors of the scale were 0.87, 0.72, and 0.85, respectively. For the sample in the study, the reliability coefficients for these factors were found as 0.83, 0.81, and 0.86, respectively. The overall reliability coefficient for the scale was 0.87. Based on these values, it can be concluded that the scale is sufficiently reliable.

Data Analysis

Initially, the normal distribution of the data was checked. Both the skewness and kurtosis values for both the demographic variables and the total mean score of the scale were found to be between -2 and +2. According to George and Mallery (2010), skewness and kurtosis values between -2 and +2 are sufficient for data to exhibit normal distribution. The kurtosis value for the total mean score of the scale was 1.817, and the skewness value was

0.486. Since the data exhibited normal distribution, independent t-test analyses were conducted for the variables of gender, level of education, and participation in in-service training. One-way analysis of variance (ANOVA) was conducted for the variables of year of work experience, type of school, place of employment, faculty of graduation, weekly teaching hours, KPSS education science test score, and field knowledge test score. Since the number of participants in the group with a high socio-economic level of the region where the school is located was below 30, a non-parametric test, specifically the Kruskal-Wallis test, was conducted. For teachers' curriculum adaptation pattern levels, percentage, frequency, and mean analyses were conducted. As the scale items are scored between 1 and 5, averages of 1.00 to 2.32 were categorized as low, 2.33 to 3.65 as moderate, and 3.66 to 5.00 as high levels. For the entire scale, scores ranging from 20 to 100 were categorized as low (20-46), moderate (47-73), and high (74-100). For the omitting and extending factors low levels were categorized between 7 and 16, moderate levels between 17 and 26, and high levels between 27 and 35. For the replacing or revising factor, low levels were categorized between 6 and 13, moderate levels between 14 and 22, and high levels between 23 and 30.

Ethics Committee Approval

For this study was received ethics decision by Hatay Mustafa Kemal University Social And Humanities Scientific Research And Publication Ethics Committee. (Date:14.07.2023 Decision:12).

Findings

The averages of the teachers were checked to determine the sub-dimensions of the scale and their levels in the whole scale, and the results are given in Table 2.

Table 2

Descriptive Values Obtained from the Scale

Subdimension	N	Min.	Max.	Mean	S. Deviation	Level
Omitting	473	7	35	13.63	5.59	Low
Extending	473	7	35	29.01	4.53	High
Replacing	473	6	30	16.38	4.85	Middle
Total	473	20	100	59.02	11.31	Middle

According to Table 2, the teachers' levels in the omitting factor was at low level with a mean score of 13.63, it was at high level in the extending factor with a mean score of 29.01. Additionally, their level was at moderate level in terms of replacing or revising factor with a mean score of 16.38. The teachers' total level was found to be at moderate level with a mean score of 59.02.

To determine whether there was a significant difference in teachers' curriculum adaptation patterns based on gender variable, an independent t-test was conducted, and the results are presented in Table 3.

Table 3

T-Test Analysis Results Based on the Gender Variable

Subdimension	Groups	N	X	ss	t	df	p
Omitting	Female	367	13.00	4.99	-3.934	471	.00**
	Male	106	15.83	6.89			
Extending	Female	367	29.43	4.35	3.854	471	.00**
	male	106	27.53	4.86			
Replacing	Female	367	16.36	4.49	-.110	471	.912
	Male	106	16.43	5.96			
Total	Female	367	10.21	10.21	-.660	471	.510
	Male	106	14.51	14.51			

**p<.01

According to the data in Table 3, teachers' curriculum adaptation patterns did not significantly differ based on the gender variable [t(471): -.660, p>.05]. Among the factors of the scale, there was no significant difference in the replacing or revising [t(471): -.110, p>.05]. For the extending dimension, there was a significant difference in favor of female teachers [t(471): 3.854, p<.05], while for the omitting dimension, there was a significant difference in favor of male teachers [t(471): -3.934, p<.05].

To determine whether there was a significant difference in teachers' curriculum adaptation patterns based on their year of work experience, ANOVA test was conducted, and the results are presented in Table 4.

Table 4

ANOVA Test Result for the Year of Work Experience Variable

Variables		N	X	S.V.	df	Mean Squares	F	p
Omitting	0-7 years	66	11.78	Between	3	219.631	7.291	.00**

	8-15 years	232	14.58	Groups				
	16-25 years	145	12.62	Within	469	30.125		
	26 +	30	15.23	Groups				
Extending	0-7 years	66	29.15	Between	3	108.766	5.428	.001*
	8-15 years	232	29.46	Groups	469			
	16-25 years	145	28.84	Within		20.038		
	26 +	30	26.00	Groups				
Replacing	0-7 years	66	15.19	Between	3	98.997	4.287	.005*
	8-15 years	232	17.08	Groups				
	16-25 years	145	15.65	Within	469	23.093		
	26 +	30	17.06	Groups				
Total	0-7 years	66	56.13	Between	3	708.720	5.705	.001*
	8-15 years	232	61.13	Groups				
	16-25 years	145	57.12	Within	469	124.233		
	26 +	30	58.30	Groups				

**p<.01 *p<.05

According to the data in Table 4, there was a significant difference in teachers' curriculum adaptation patterns based on their year of work experience in terms of both total mean score and factors of the scale [F(3,469):5.705, p<.05]. A post-hoc analysis was conducted to identify exactly which groups differ from each other, and the results are presented in Table 5.

Table 5

Post-Hoc. Analysis Results for the Year of Work Experience Variable

Variables	I	-	J	Mean difference	Std. error	p
Omitting	0-7 years		8-15 years	-.83	.52	.508
			16-25 years	-2.79	.58	.00**
			26 years +	-3.44	.91	.003*
Extending	8-15 years		16-25 years	1.95	.56	.003*
			26 years +	-.64	.94	.983
			16-25 years	26 years +	-2.60	.90
Extending	0-7 years		8-15 years	-.31	.62	.997
			16-25 years	.31	.67	.998
			26 years +	3.15	.67	.000**
Replacing	8-15 years		16-25 years	.62	.49	.746
			26 years +	3.46	.48	.000**
			16-25 years	26 years +	2.84	.54
Replacing	0-7 years		8-15 years	-1.88	.62	.019*
			16-25 years	-.45	.62	.976
			26 years +	-1.86	.79	.126
Total	8-15 years		16-25 years	1.42	.50	.027*
			26 years +	.01	.70	1.000
			16-25 years	26 years +	-1.41	.70
Total	0-7 years		8-15 years	-5.00	1.31	.001*
			16-25 years	-.98	1.21	.961
			26 years +	-2.16	1.68	.748

8-15 years	16-25 years	4.01	1.13	.003*
	26 years +	2.83	1.63	.427
16-25 years	26 years +	-1.17	1.55	.973

**p<.01 *p<.05

According to Table 5, in the omitting factor, the difference was in favor of the teachers with 16-25 years of work experience and with 26 years and more year of work experience. In the extending factor, this difference was in favor of the teachers with 26 years and more experience. In the replacing or revising subdimension, the difference was in favor of the teachers with 8-15 years of experience. Additionally, in terms of total mean score, the difference was in favor of the teachers with 8-15 years of work experience.

ANOVA was conducted to determine whether there was a significant difference in teachers' curriculum adaptation patterns in terms of the types of schools they worked in. The results are presented in Table 6.

Table 6

ANOVA Results for School Type Variable

Variables		N	X	S.V.	df	Mean Squares	F	p
Omitting	Primary	219	12.75	Between	2	159.643	5.186	.006*
	Secondary	148	14.45	G.	470	30.783		
	High school	106	14.31	Within G.				
Extending	Primary	219	30.28	Between	2	552.817	30.148	.000**
	Secondary	148	29.04	Groups				
	High school	106	26.34	Within	470	18.337		
Replacing	Primary	219	16.24	Between	2	258.952	11.471	.000**
	Secondary	148	17.69	Groups				
	High school	106	14.82	Within	470	22.574		
Total	Primary	219	59.28	Between	2	1021.679	8.320	.000**
	Secondary	148	61.19	Groups				
	High school	106	55.48	Within	470	124.145		
				Groups				

**p<.01 *p<.05

According to the data presented in Table 6, there was a significant difference in teachers' curriculum adaptation patterns based on the types of schools in terms of both the total mean score and factors of the scale [F(2,470):8.320, p<.01]. Post-hoc analysis was conducted to identify exactly which groups differ from each other, and the results are presented in Table 7.

Table 7

Post-Hoc. Results Analysis Results for School Type Variable

Variables	I	-	J	Mean difference	Std. error	p
Omitting	Primary		Secondary	-1.76	.63	.022*
			High school	-1.55	.61	.036*
Extending	Primary		High school	.14	.75	.996
			Secondary	1.24	.42	.010*
	Secondary		High school	3.93	.57	.00**
Replacing	Primary		High school	2.69	.60	.00**
			Secondary	-1.44	.50	.012*
	Secondary		High school	1.42	.57	.042*
Total	Primary		High school	2.87	.62	.00**
			Secondary	-1.91	1.20	.302
	Secondary		High school	3.80	1.36	.018*
	Secondary		High school	5.71	1.57	.001*

**p<.01 *p<.05

According to the results presented in Table 7, in terms of the omitting dimension, there was a significant difference in favor of primary school teachers compared to secondary school and high school teachers. In the extending dimension, there was a significant difference in favor of primary school teachers compared to both secondary school and high school teachers. Additionally, in the comparison between secondary school and high school teachers, the difference was in favor of secondary school teachers. In the replacing or revising dimension, there was a significant difference between the primary and secondary school teachers in favor of secondary school teachers; between the primary school and high school students in favor of primary school teachers; between the secondary school and high school teachers in terms of secondary school teachers. In terms of the total mean score, there was a significant difference between the primary school and high school students in terms of primary school teachers; and between the secondary and high school students in favor of secondary school students.

ANOVA was conducted to determine whether there was a significant difference in teachers' curriculum adaptation patterns based on the graduated faculty variable. The results are presented in Table 8.

Table 8

ANOVA Results for the Graduated Faculty Variable

Variables	Faculty	N	X	S.V.	df	Mean Squares	F	p
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Omitting	Education	368	13.34	Between Groups	2	124.561	4.027	.018*
	Scien.-Lit.	71	13.97					
	Other	34	16.11	Within Groups	470	30.933		
Extending	Education	368	29.54	Between Groups	2	337.328	17.520	.00**
	Scien.-Lit.	71	26.18					
	Other	34	29.11	Within Groups	470	19.254		
Replacing	Education	368	16.91	Between Groups	2	308.447	13.793	.00**
	Scien.-Lit.	71	13.70					
	Other	34	16.14	Within Groups	470	22.363		
Total	Education	368	59.82	Between Groups	2	1155.140	9.348	.00**
	Scien.-Lit.	71	53.85					
	Other	34	61.38	Within Groups	470	123.577		

**p<.01 *p<.05

According to the data presented in Table 8, there was a significant difference in teachers' curriculum adaptation patterns based on the graduated faculty type in terms of the total mean score and the score obtained from the subdimensions of the scale [F(2,470): 9.348, p<.01]. Post-hoc analysis was conducted to identify exactly which groups differ from each other, and the results are presented in Table 9.

Table 9

Post-Hoc Analysis Results for the Graduated Faculty Variable

Variables	I	J	Mean difference	Std. error	p
Omitting	Education	Science - Literature	-.62	.72	.383
		Other	-2.77	.99	.006*
	Science - Literature	Other	-2.14	1.15	.065
Extending	Education	Science - Literature	3.36	.62	.00**
		Other	.43	.67	.893
	Science - Literature	Other	-2.93	.86	.003*
Replacing	Education	Science - Literature	3.21	.65	.00**
		Other	.77	.82	.734
	Science - Literature	Other	-2.44	.99	.041*
Total	Education	Science - Literature	5.95	1.44	.00**
		Other	-1.57	1.99	.430
	Science - Literature	Other	-7.53	2.31	.001*

**p<0.01 *p<0.05

According to the results presented in Table 9, there was a significant difference in the curriculum adaptation patterns of teachers based on the faculties from which they graduated in

terms of omitting subdimension. This difference was in favor of the teachers who graduated from faculties categorized as other than education and faculties related to arts and sciences. In the dimensions of “extending” and “replacing or revising” subdimensions, there was a significant difference in favor of education faculty graduates in the comparison between education and arts and sciences faculties, and in favor of graduates from faculties other than arts and sciences in the comparison between arts and sciences and other faculties. In terms of the total mean score, significant difference was observed in favor of education faculty graduates in the comparison between education and arts and sciences faculties, and in favor of graduates from faculties other than arts and sciences in the comparison between arts and sciences and other faculties.

The results of the one-way ANOVA analysis conducted to determine whether there was a significant difference in the curriculum adaptation patterns of teachers based on place of work are presented in Table 10.

Table 10

ANOVA Results for Place of Work Variable

Variables		N	X	S.V.	df	Mean Squares	F	p
Omitting	Town	88	12.45	Between	2	80.714	2.594	.76
	District	189	14.07	Groups				
	City	196	13.74	Within	470	31.119		
Extending	Town	88	29.38	Between	2	182.995	9.191	.00**
	District	189	29.89	Groups				
	City	196	27.98	Within	470	19.910		
Replacing	Town	88	15.60	Between	2	227.221	10.006	.00**
	District	189	17.58	Groups				
	City	196	15.57	Within	470	22.709		
Total	Town	88	57.44	Between	2	1004.785	8.089	.00**
	District	189	61.55	Groups				
	City	196	57.30	Within	470	124.217		
				Groups				

**p<0.01 *p<0.05

According to the data presented in Table 10, there was no significant difference in the adaptation patterns of teachers based on their place of work in the omitting dimension. However, there was a significant difference in the extending and replacing or revising dimensions, as well as in terms of the total mean score [F(2,470):8.089, p<.01]. Post-hoc

analysis was conducted to identify exactly which groups differ from each other, and the results are presented in Table 11.

Table 11

Post-Hoc. Results for The Place of Work Variable

Variables	I	-	J	Mean difference	Std. error	p
Omitting	Town		District	-1.61	.71	.075
			City	-1.29	.71	.216
Extending	Town	District	City	-2.14	1.15	1.000
			District	City	-.51	.48
Replacing	Town		District	1.39	.55	.036*
		District	City	1.90	.45	.00**
Total	Town		District	-1.97	.61	.001*
		District	City	.03	.61	0.960
Total	District		City	2.01	.48	.00**
		Town	District	-4.11	1.22	.003*
			City	.13	1.14	.999
		District	City	4.24	1.20	.001*

**p<0.01 *p<0.05

According to Table 11, there was no significant difference in the omitting dimension. In the extending dimension, there was a significant difference in favor of those working in villages and small towns compared to those working in district and provincial centers, and in the comparison between district and provincial centers, there was a significant difference in favor of those working in district centers. In the replacing or revising dimension, there was a significant difference in favor of those working in district centers. In terms of the total mean score, there was a significant difference in favor of teachers working in district centers compared to those working in both villages and small towns, as well as provincial centers.

To determine whether there was a significant difference in teachers' curriculum adaptation patterns based on their participation in in-service training, an independent t-test was conducted, and the results are presented in Table 12.

Table 12

T-Test Results for in in-Service Training Variable

Variables	Groups	N	X	ss	t	df	p
Omitting	Yes	331	13.66	4.61	.140	471	.889
	No	142	13.57	7.41			
Extending	Yes	331	28.86	4.43	-1.088	471	.291
	No	142	29.35	4.75			
Replacing	Yes	331	16.14	4.48	-1.477	471	.141

	No	142	16.92	5.60			
Total	Yes	331	58.67	9.68	-.897	471	.371
	No	142	59.85	14.41			

According to the data in Table 12, there was no significant difference in teachers' curriculum adaptation patterns, in terms of total mean score and the sub-dimensions, based on their prior participation or non-participation in in-service training related to the curriculum [t(471): -.897, p>.05].

Independent t-tests were conducted to determine whether there was a significant difference in teachers' curriculum adaptation patterns based on their education level. The results are presented in Table 13.

Table 13

T-Test Results for the Education Level Variable

Variables	Groups	N	X	ss	t	df	p
Omitting	Undergraduate	371	13.61	5.78	-.141	471	.888
	Graduate	102	13.70	4.89			
Extending	Undergraduate	371	29.13	4.58	1.141	471	.255
	Graduate	102	28.55	4.34			
Replacing	Undergraduate	371	16.61	5.03	2.322	471	.021*
	Graduate	102	15.50	4.04			
Total	Undergraduate	371	11.68	11.68	1.266	471	.206
	Graduate	102	9.78	9.78			

*p<0.05

According to the data presented in Table 13, there was a significant difference in teachers' curriculum adaptation patterns based on their education level only in the replacing or revising dimension in favor of the teachers with a bachelor's degree. There was no significant difference in other dimensions and in terms of total mean score [t(471): 1.266, p>.05].

An analysis of one-way ANOVA was conducted to determine whether there was a significant difference in teachers' curriculum adaptation patterns based on their weekly teaching hours. The results are presented in Table 14.

Table 14

ANOVA Result for the Weekly Teaching Hours

Variables		N	X	S.V.	df	Mean Squares	F	p
Omitting	0-15 hours	71	17.76	Between	2	733.509	25.881	.00**
	16-25 hours	143	13.36	Groups				
	26 hours +	259	12.65	Within	470	28.341		
Extending	0-15 hours	71	30.08	Between	2	367.769	19.231	.00**
	16-25 hours	143	27.12	Groups				
	26 hours +	259	29.76	Within	470	19.124		
Replacing	0-15 hours	71	18.74	Between	2	258.659	11.458	.00**
	16-25 hours	143	15.48	Groups				
	26 hours +	259	16.22	Within	470	22.575		
Total	0-15 hours	71	66.59	Between	2	2714.944	23.217	.00**
	16-25 hours	143	55.97	Groups				
	26 hours +	259	58.64	Within	470	116.940		

**p<0.01

According to the data in Table 14, there was no significant difference in teachers' curriculum adaptation patterns based on their weekly teaching hours, both in the sub-dimensions of the scale and in terms of total mean score [F(2,470):23.217, p<.01]. Post-hoc analysis was conducted to identify exactly which groups differ from each other, and the results are presented in Table 15.

Table 15

Post – Hoc. Results for the Weekly Teaching Hours Variable

Variables	I	-	J	Mean difference	Std. error	p
Omitting	0-15 hours		16-25 hours	4.39	.91	.00**
			26 hours +	5.10	.90	.00**
	16-25 hours		26 hours +	.70	.48	.368
Extending	0-15 hours		16-25 hours	2.95	.64	.00**
			26 hours +	.32	.64	.943
	16-25 hours		26 hours +	-2.63	.41	.00**
Replacing	0-15 hours		16-25 hours	3.25	.73	.00**
			26 hours +	2.52	.70	.002*
	16-25 hours		26 hours +	-.73	.46	.416
Total	0-15 hours		16-25 hours	10.61	1.75	.00**
			26 hours +	7.95	1.73	.00**
	16-25 hours		26 hours +	-2.66	1.01	.026*

**p<0.01 *p<0.05

According to the data in Table 15, significant differences existed based on weekly teaching hours variable. In the sub-dimension of “omitting”, this difference was in favor of the teachers with 0-15 hours of weekly teaching hours. In the “extending” sub-dimension, this difference was in favor of those with 0-15 hours and those with 26 hours or more of weekly

teaching hours. In the replacing or revising dimension, this difference was in favor of those with 0-15 hours of weekly teaching hours. In terms of the total mean score, compared to teachers with 16-25 hours and those with 26 hours or more of weekly teaching hours, teachers with 0-15 hours of weekly teaching hours were favored. In the comparison between teachers with 16-25 hours and those with 26 hours or more of weekly teaching hours, the difference was in favor of the teachers with 26 hours or more of weekly teaching hours.

Since the number of participants in the group with a high socio-economic level of the region where the school is located was below 30, Kruskal-Wallis test, was conducted to determine whether there was a significant difference in the curriculum adaptation patterns of the teachers based on the socio-economic level of region where the school is located. The results are presented in Table 16.

Table 16

Kruskal Wallis Results According to the Socio-Economic Level of the Region Where the School is Located

Variables		N	Mean Rank	df	Chi Square	p
Omitting	Low	100	222.03	2	5.258	.072
	Middle	351	244.42			
	High	22	186.59			
Extending	Low	100	232.15	2	.969	.616
	Middle	351	239.89			
	High	22	212.98			
Replacing	Low	100	248.95	2	1.516	.469
	Middle	351	232.50			
	High	22	254.55			
Total	Low	100	227.17	2	1.078	.583
	Middle	351	240.78			
	High	22	221.32			

According to Table 16, there was no significant difference in curriculum adaptation patterns of the teachers based on the socio-economic level of region where the school is in terms of the subdimension of the scale and the total mean score.

One-way ANOVA was conducted to determine whether there was a significant difference in curriculum adaptation patterns based on teachers' KPSS education sciences exam scores. The results are presented in Table 17.

Table 17

ANOVA Results for the KPSS Education Sciences Exam Scores Variable

Variables		N	X	S.V.	df	Mean Squares	F	p
Omitting	0-75 point	72	14.54	Between	3	195.162	6.445	.00**
	76-85 point	264	12.82	Groups				
	86-100 point	90	15.57	Within	469	30.281		
	I was appointed before the exam	47	13.06	Groups				
Extending	0-75 point	72	28.18	Between	3	173.957	8.866	.00**
	76-85 point	264	29.09	Groups				
	86-100 point	90	30.62	Within	469	19.621		
	I was appointed before the exam	47	26.76	Groups				
Replacing	0-75 point	72	15.88	Between	3	219.106	9.815	.00**
	76-85 point	264	15.73	Groups				
	86-100 point	90	18.80	Within	469	22.324		
	I was appointed before the exam	47	16.12	Groups				
Total	0-75 point	72	58.61	Between	3	1387.642	11.574	.00**
	76-85 point	264	57.65	Groups				
	86-100 point	90	65.00	Within	469	119.891		
	I was appointed before the exam	47	55.95	Groups				

**p<0.01

According to the data in Table 17, there was a significant difference in curriculum adaptation patterns based on teachers' KPSS education sciences exam scores both in the sub-dimensions and the total mean score [F(3,469):11.574, p<.01]. Post-hoc analysis was conducted to identify exactly which groups differ from each other, and the results are presented in Table 18.

Table 18

Post – Hoc. Results for The KPSS Education Sciences Exam Scores Variable

Variables	I	-	J	Mean difference	Std. error	p
Omitting	0-75-point		76-85 point	1.71	.70	.098
			86-100 point	-1.03	1.01	.890
	76-85point		I was appointed before the exam.	1.47	1.00	.604
			86-100 point	-2.74	.83	.008*
86-100 point		I was appointed before the exam.	-.23	.82	1.000	
		I was appointed before the exam	2.51	1.09	.133	
Extending	0-75-point		76-85 point	-.91	.73	.767
			86-100 point	-2.44	.76	.011*
	76-85point		I was appointed before the exam.	1.41	.90	.544
			86-100 point	-1.53	.44	.004*
86-100 point		I was appointed before the exam.	2.32	.70	.005*	
		I was appointed before the exam	3.85	.70	.00**	

Replacing	0-75-point	76-85 point	.15	.73	1.000
		86-100 point	-2.91	.86	.006*
	76-85point	I was appointed before the exam.	-.23	.89	1.000
		86-100 point	-3.06	.59	.00**
Total	0-75-point	I was appointed before the exam	-.39	.64	.991
		86-100 point	2.67	.78	.006*
	76-85point	I was appointed before the exam	2.67	.78	.006*
		86-100 point	2.67	.78	.006*
Total	0-75-point	76-85 point	.95	1.69	.994
		86-100 point	-6.38	2.14	.020*
	76-85point	I was appointed before the exam.	2.65	2.14	.771
		86-100 point	-7.34	1.54	.00**
Total	0-75-point	I was appointed before the exam.	1.69	1.53	.853
		86-100 point	2.02	2.02	.00**

**p<.01, *p<.05

According to the data in Table 18, there was a significant difference in adaptation patterns based on their KPSS education sciences exam scores. In the dimensions of “omitting” and “replacing or revising” dimension, this difference was in favor of the teachers with 86-100 points. In the “extending” dimension, this difference was in favor of the teachers with 86-100 points. Additionally, there was a significant difference between the teachers with 76-85 points and those who were assigned before the education sciences exams and in favor of the teachers with 76-85 points. In terms of the total mean score, there was a significant difference in favor of the teachers - with KPSS education sciences scores between 86-100.

ANOVA was conducted to determine whether there was a significant difference in curriculum adaptation patterns based on the teachers’ KPSS subject area exam scores. The results are presented in Table 19.

Table 19

ANOVA Results for The KPSS Field Exam Score Variable

Variables	N	X	S.V.	df	Mean Squares	F	p	
Omitting	0-75 point	55	13.96	Between	3	35.806	1.144	.331
	76-85 point	141	13.00	Groups				
	86-100 point	55	14.50	Within	469	31.301		
	I was appointed before the exam	222	13.74	Groups				
Extending	0-75 point	55	28.81	Between	3	45.378	2.220	.085
	76-85 point	141	28.42	Groups				
	86-100 point	55	30.23	Within	469	20.443		
	I was appointed before the exam	222	29.13	Groups				
Replacing	0-75 point	55	15.47	Between	3	200.346	8.926	.00**
	76-85 point	141	14.89	Groups				

	86-100 point	55	17.41	Within	469	22.444		
	I was appointed before the exam	222	17.29	Groups				
Total	0-75 point	55	58.25	Between	3	632.050	5.068	.002*
	76-85 point	141	56.31	Groups				
	86-100 point	55	62.16	Within	469	124.724		
	I was appointed before the exam	222	60.16	Groups				

**p<0.01

According to the data in Table 19, there was a significant difference in curriculum adaptation patterns based on teachers' KPSS subject area exam scores in the "replacing or revising" sub-dimension and in the total mean score [F(3,469):5.068, p<0.01]. Post-hoc analysis was conducted to identify exactly which groups differ from each other, and the results are presented in Table 20.

Table 20

Post – Hoc. Results for The KPSS Field Exam Score Variable

Variables	I	-	J	Mean difference	Std. error	p
Omitting	0-75-point	I was appointed before the exam.	76-85 point	.96	.88	.279
			86-100 point	-.54	1.06	.609
			86-100 point	.22	.84	.794
	76-85-point	I was appointed before the exam.	86-100 point	-1.50	.88	.090
			86-100 point	-.74	.60	.218
			86-100 point	.76	.84	.364
Extending	0-75-point	I was appointed before the exam.	76-85 point	.39	.71	.585
			86-100 point	-1.41	.86	.101
			86-100 point	-.31	.68	.647
	76-85-point	I was appointed before the exam.	86-100 point	-1.81	.71	.073
			86-100 point	-.70	.48	.889
			86-100 point	1.10	.68	.631
Replacing	0-75-point	I was appointed before the exam.	76-85 point	.57	.80	.978
			86-100 point	-1.94	.87	.163
			86-100 point	-1.82	.78	.130
	76-85-point	I was appointed before the exam.	86-100 point	-2.52	.63	.001*
			86-100 point	-2.39	.50	.00**
			86-100 point	.12	.61	1.000
Total	0-75-point	I was appointed before the exam.	76-85 point	1.93	1.75	.854
			86-100 point	-3.90	2.01	.288
			86-100 point	-1.91	1.80	.874
	76-85-point	I was appointed before the exam.	86-100 point	-5.84	1.44	.001*
			86-100 point	-3.84	1.13	.005*
			86-100 point	1.99	1.49	.707

**p<.01 *p<.05

Based on the data presented in Table 20, there was no significant difference in the “omitting” and “extending” sub-dimensions according to the KPSS subject area exam scores of the teachers. However, in the “replacing or revising” sub-dimension, there was a significant difference between the teachers with 86-100 points and who were assigned based on subject area exams in favor of those with 86-100 points. When comparing those who scored between 76-85 points with those assigned before the subject area exams, there was a significant difference favoring those who were assigned before the exams. In terms of total mean score, there was a significant difference between the teachers with 86-100 points and who were assigned based on subject area exams in favor of those with 86-100 points. When comparing those who scored between 76-85 points with those assigned before the exams, there was a significant difference in favor of those assigned before the exam.

Discussion and Results

Teachers can make certain adjustments to the curriculum they implement. Meidl and Meidl (2011) refer to this phenomenon as teachers making fine-tuning adjustments to the curriculum. In this study, the potential differences in teachers’ curriculum adaptation patterns based on certain demographic variables that could have an impact have been investigated through a survey method.

Teachers’ curriculum adaptation patterns were determined as low in the omitting dimension, as high in the extending dimension, and as moderate in the replacing or revising dimension and in terms of total mean score. Based on this result, it can be inferred that teachers generally adhere to the content, and they adapt the program by expanding the content, activities, or materials. Teachers exhibit a moderate level of adjustment in terms of duration, sequence of topics, methods, techniques, and material changes. The moderate level of teachers’ curriculum adaptation patterns suggests that they do not extensively modify or adapt the curriculum. This could be attributed to the centralized administrative approach in Türkiye, where the curriculum is developed by the Republic of Türkiye Ministry of National Education for the entire country. Yazıcılar (2016) has indicated the perception of teachers in Türkiye to refrain from deviating from the regulations. Similarly, Tokgöz (2013) has pointed out that due to the centralized curriculum approach in the Turkish education system, teachers do not engage in program adaptation behaviors.

There was no significant difference in curriculum adaptation patterns based on teachers' genders. This result indicates that teachers, regardless of gender, are more inclined to implement the official program without making significant adaptations. The finding by Tokgöz (2013) stating that teacher autonomy is lacking supports this finding. Similarly, Karatay, Günbey, and Taş (2020) have stated that there is no significant difference between gender and teacher autonomy. In the omitting dimension, there was a significant difference in favor of male teachers, and in the extending dimension, there was a significant difference in favor of male teachers as well. This implies that male teachers engage in curriculum adaptation by omitting certain parts of the lesson, while female teachers adapt the curriculum by adding extra time, examples, activities, and materials, among others.

There was a significant difference between teachers' years of work experience and curriculum adaptation levels in favor of those with 8-15 years of experience. This difference was obtained in the omitting and extending sub-dimensions in favor of the teachers with higher year of work experience. Therefore, teachers with greater experience, knowledge, expertise, and observations are more inclined to adapt the curriculum due to their familiarity with the subject. This finding is supported by Burkhauser and Lesaux (2017) as well as McCarthy and Woodard (2017), who found that experienced teachers tend to adapt the curriculum more, taking students' needs into account while adapting and being more experienced in research and accessing various resources compared to less experienced teachers. Teachers with higher experience possess a better understanding of the curriculum, school, and students' conditions. Their awareness of students' challenges and effective learning strategies makes them more adept at curriculum adaptation. Their greater familiarity with learners' difficulties and learning styles, as well as their understanding of school and student conditions, give them an advantage in the adaptation process.

According to school type variables, there was a significant difference in favor of secondary school and high school teachers in the omitting dimension, in favor of primary school teachers in the extending dimension, and in favor of primary and middle school teachers in the replacing or revising dimension and in terms of total mean score. Primary school teachers tend to engage in more expansion-type adaptation due to factors such as the limited number of learning outcomes in their curriculum, the manageable content volume, and the developmental characteristics of primary school students. This is because they may not have the flexibility to omit over certain content or outcomes. Instead, they adapt by extending on the existing material to ensure each student's needs are met. This finding is supported by

Yazıcılar and Bümen (2019), who stated that teachers from different schools adapt their curriculum for various reasons while considering the unique characteristics of their schools.

There was no significant difference in curriculum adaptations based on the socio-economic level of the region where the school is located. This may be attributed to teachers striving to ensure equal opportunities for all students regardless of any class or socio-economic distinctions during their duties. However, in terms of their work locations, there was a significant difference in favor of teachers in district centers in the extending dimension, replacing or revising dimension, and in terms of total mean score, compared to those in villages and small towns. This result can be interpreted by the fact that students in rural areas are more disadvantaged compared to students in district and city centers, leading to a higher emphasis on expansion-type adaptations. Teachers in district centers might have fewer concerns regarding protocols and oversight compared to those in city centers, resulting in the significant differentiation of adaptation patterns. Existing literature indicates that teachers consider the learning environment when adapting curriculum (Burkhauser and Lesaux, 2017). According to Davis, Beyer, Forbes, and Stevens (2011), teachers base their adaptations on the local context, which includes the conditions of their work location.

In the variable of educational level, there was no significant difference in terms of total mean score and the omitting and extending dimensions, while there was a significant difference in favor of bachelor's graduates in the replacing or revising dimension. This finding suggests that teachers with bachelor's and postgraduate degrees have similar tendencies in curriculum adaptation. Based on the variable of the graduated faculty, there was a significant difference in favor of graduates from faculties other than education in the omitting dimension, and in favor of graduates from both education faculties and other faculties in the extending, replacing or revising dimensions and in terms of total mean score. Bernard (2017) emphasized that teachers' knowledge and McCarthy and Woodard (2017) stated that teachers' pedagogical skills are influential factors when adapting curriculum. It can be argued that teachers who have graduated from education faculties possess these skills due to the theoretical education and internship opportunities they received during their academic studies. However, it could be further explored whether teachers from other faculties make adaptations within the boundaries of the curriculum to determine the extent of their adaptation and its alignment with the goals of the curriculum.

There was no significant difference in curriculum adaptation patterns of the teachers based on whether they have received in-service training related to the curriculum. This

situation may be attributed to factors such as the subject matter, quality, and characteristics of the participants in the in-service training that teachers have received. According to the weekly class hour variable, a significant difference was found in favor of teachers who teach 0-15 hours per week compared to those who teach more than 26 hours. This result suggests that teachers with fewer teaching hours tend to adapt the curriculum more extensively than those with a higher number of teaching hours.

Based on the KPSS education sciences exam scores, there was a significant difference in favor of those who scored between 86 and 100 in terms of total mean score, as well as in the omitting and replacing or revising dimensions. In the extending dimension, there was a significant difference in favor of those who scored between 86 and 100, as well as in favor of those who scored between 76 and 85. The curriculum adaptation patterns of those who scored higher on the education sciences exam were significantly higher. In terms of KPSS subject exam scores, there was no significant difference in the omitting and extending sub-dimensions. However, in the replacing or revising dimension and in terms of total mean score, there was a significant difference in favor of those who scored between 86 and 100, as well as in favor of those assigned before the subject exam. It can be suggested that the high pedagogical and subject knowledge of teachers influences their adaptation skills positively, while those assigned before the subject exam exhibit effective adaptation skills due to their high years of service, which result in experience and expertise. Bernard (2017) emphasized the importance of teachers' knowledge, while McCarthy and Woodard (2017) highlighted pedagogical skills. Additionally, İlhan (2022) underlined the role of professional experience in curriculum adaptation.

Teachers may need to make certain adjustments to curriculum due to reasons such as the nature of the curriculum, the subject matter, the characteristics of the students, the school environment, technological developments, and individual considerations. In curriculum adaptation, what matters is the ability to make successful modifications that address students' needs and other conditions, all while staying within the boundaries of the curriculum and without deviating from it.

As a result, teachers can make some adaptations on the programs they implement, sometimes obligatory and sometimes voluntarily. Teachers' curriculum adaptation levels were a moderate level. For the total mean score, there were no significant differences based on gender, in-service training, level of education, and the socio-economic level of the region where the school is located variables. However, there were significant differences based on the year of work experience for those with 8-15 years of experience, the type of school where they work

(primary and secondary schools), the place of employment (working in districts), the faculty of graduation (education and other faculties), and the weekly teaching hours variable for those with 0-15 hours and 26 hours and more. Significant differences were determined in favor of those who received 86-100 according to the KPSS educational sciences score of the teachers, and 86-100 according to the KPSS field exam, and those who were assigned before the field exam.

Recommendations

1. There is a limited number of studies in the literature on curriculum adaptation. For this reason, studies can be conducted for both teachers and teacher candidates.
2. The extent to which teachers who graduated from other faculties other than the faculty of education make adaptations within the boundaries of the program can be examined as a separate research topic.
3. A screening study can be done with different demographic variables and a large number of participants.
4. Relational screening studies can be conducted to measure the relationship between curriculum adaptation and different variables that may be related.

Ethics Committee Approval

For this study was received ethics decision by Hatay Mustafa Kemal University Social And Humanities Scientific Research And Publication Ethics Committee. (Date:14.07.2023 Decision:12).

References

- Akbulut Taş, M. (2022). An investigation of curriculum adaptation efforts of teachers working in disadvantaged secondary schools. *Pegem Journal of Education and Instruction*, 12(1), 10-24. <https://doi.org/10.47750/pegegog.12.01.02>
- Bernard, A. M. (2017). Curriculum decisions and reasoning of middle school teachers. *All Theses and Dissertations*. 6488. <http://scholarsarchive.byu.edu/etd/6488>

- Burkhauser, M. A., & Lesaux, N. K. (2017). Exercising a bounded autonomy: Novice and experienced teachers' adaptations to curriculum materials in an age of accountability, *Journal of Curriculum Studies*, <https://doi.org/10.1080/00220272.2015.1088065>
- Bümen, N. & Yazıcılar, Ü. (2020). Öğretmenlerin öğretim programı uyarlamaları üzerine bir durum çalışması: devlet ve özel lise farklılıkları. *Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi*, 40 (1) , 183-224. <https://doi.org/10.17152/gefad.595058>
- Bümen, N. T. (2019). Türkiye'de merkezîyetçiliğe karşı özerklik kısılcısında eğitim programları: sorunlar ve öneriler. *Kastamonu Eğitim Dergisi*, 27(1), 175-185. <https://doi.org/10.24106/kefdergi.2450>
- Creswell, J. W. (2017). *Araştırma deseni: Nitel, nicel ve karma yöntem yaklaşımları* (3. baskı). (S. B. Demir, çev. ed.). Eğiten Kitap
- Çeliker Ercan, G. (2019). *Ortaokul İngilizce öğretmenlerinin program uygulama yaklaşımlarının öğrencilerin motivasyonlarına ve akademik başarılarına etkisi* [Yayımlanmamış Yüksek Lisans Tezi] Osmangazi Üniversitesi, Eğitim Bilimleri Enstitüsü.
- Davis, E. A., Beyer, C., Forbes, C. T. & Stevens, S. (2011). Understanding pedagogical design capacity through teachers' narratives. *Teaching and Teacher Education*, 27(4), 797-810.
- Doll, W. (1986) Prigogine: A new sense of order, A new curriculum. *Theory into Practice*, 25(1), 10-16.
- Drake, C., & Sherin, M. G. (2006). Practicing change: Curriculum adaptation and teacher narrative in the context of mathematics reform education. *Curriculum Inquiry*, 36(2), 153-187.
- Eryaman, M.Y. & Riedler, M. (2010). *Teacher-proof curriculum*. In C. Kriedel. (2010). *Encyclopedia of Curriculum Studies*. (pp. 864-865). NY: Sage
- George, D. & Mallery, M. (2010). *SPSS for Windows Step by Step: A Simple Guide and Reference*. Boston: Pearson.
- İlhan, B. (2022). *Farklı branşlardaki ortaokul öğretmenlerinin öğretim programını sınıfa uyarlama sürecinin incelenmesi* [Yayımlanmamış Yüksek Lisans Tezi]. Sosyal Bilimler Enstitüsü, Ege Üniversitesi.
- Karatay, M., Günbey, M. & Taş, M. (2020). Öğretmen profesyonelliği ile öğretmen özerkliği arasındaki ilişki. *Munzur Üniversitesi Sosyal Bilimler Dergisi*, 9(2), 173-195.

- Li, Z. & Harfitt, G. J. (2017) An examination of language teachers' enactment of curriculum materials in the context of a centralised curriculum, *Pedagogy, Culture & Society*, 25(3), 403-416.
- McCarthy, S. J. & Woodard, R. (2017). Faithfully following, adapting, or rejecting mandated curriculum: Teachers' curricular enactments in elementary writing instruction, *Pedagogies: An International Journal*, <https://doi.org/10.1080/1554480X.2017.1376672>
- Meidl, T. & Meidl, C. (2011). Curriculum integration and adaptation: Individualizing pedagogy for linguistically and culturally diverse students. *Current Issues in Education*, 14(1).
- Monetle, D.R., Sullivan, T. & De Jong, C.R. (1990). *Applied Social Research*. Harcourt Broce Jovanovich, Inc.
- Parson, S. A., Vaughn, M., Scales, R. Q., Gallagher, M. A., Parsons, A. W., Davis, S. G., Pierczynski, M., & Allen, M. (2018). Teachers' instructional adaptations: A research synthesis, *Review of Educational Research*, 88(2), 205-242, <https://doi.org/10.3102/0034654317743198>
- Sherin, M. G., & Drake, C. (2009). Curriculum strategy framework: Investigating patterns in teachers' use of a reform based elementary mathematics curriculum. *Journal of Curriculum Studies*, 41(4), 467-500.
- Tokgöz, Ö. (2013). *Transformation of centralized curriculum into teaching and learning processes: Teachers' journey of thought curriculum into enacted one* [Yayımlanmamış Doktora Tezi], Sosyal Bilimler Enstitüsü, Orta Doğu Teknik Üniversitesi.
- Troyer, M. (2019). Productivity of teacher adaptations to an adolescent literacy curriculum. *The Elementary School Journal*, 119(3), 1–35. <https://doi.org/10.1086/701719>
- Yazıcılar Nalbantoğlu Ü., Bümen N. & Uslu Ö. (2021). Teachers' curriculum adaptation patterns: A scale development study. *Teacher Development*. 26(1), <https://doi.org/10.1080/13664530.2021.1996452>
- Yazıcılar, Ü. (2016). *Öğretmenlerin matematik dersi öğretim programını uyarlama sürecinin incelenmesi* [Yayımlanmamış Yüksek Lisans Tezi]. Sosyal Bilimler Enstitüsü, Ege Üniversitesi.
- Yazıcılar, Ü., & Bümen N.T. (2019). Crossing over the brick wall: Adapting the curriculum as a way out. *Issues in Educational Research*, 29(2), 583-609.