THE EXAMINATION OF THE RELATIONSHIP BETWEEN TEACHERS' COMMITMENT TO THE CURRICULUM AND TEACHER AUTONOMY BEHAVIORS

Abstract: The aim of the present study was to reveal the relationship between teachers' commitment to the curriculum and teacher autonomy. The study was conducted during the fall term of the 2020-2021 academic year by means of google forms administered to 956 students on social platforms. The data collection instruments utilized in the study were the Teacher Autonomy Scale and the Curriculum Commitment Scale. To analyze the data, descriptive analyses, correlation analysis, and MANOVA were conducted. The results of the study revealed that teachers were commited to the curriculum and displayed behaviors of autonomy. It was revealed that there was a moderate degree of correlation between teacher autonomy and commitment to the curriculum. A low level of positive relationship was identified between teachers' commitment to the curriculum and their levels of autonomy in the curriculum, professional development, and professional communication.

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INTRODUCTION

CURRICULUM COMMITMENT

As implementers of predefined goals, content, methods and activities, teachers are responsible for the achievements of their students (Demirel, 2010). Hence, teachers' viewpoints regarding the curriculum are important.

It is indicated in the related literature that there is a discrepancy between the intended curriculum and the enacted curriculum (Mihalic, 2002; Bayrak and Erden, 2007; Öztürk, 2012; Tokgöz, 2013; Han, 2013; Bümen, Çakar and Yıldız, 2014; Yazıcılar, 2016; Bay, Kahramanoğlu, Döş, Turan-Özpolat, 2017; Bümen, 2019; Bümen and Yazıcılar, 2020). Elimination of teachers' anxieties associated with the implementation of a curriculum increases the effectiveness of the enacted curriculum (Gökçek, 2008), and studies on decision making processes enhance the understanding of how theory is transformed into practice (Tokgöz, 2013). Thus, studies addressing teachers' daily class activities, their perceptions, beliefs, and their approaches to the way the intended curriculum is enacted are essential (Öztürk, 2012; Han, 2013; Tokgöz, 2013; Bümen, 2019). The transformation process and teachers' approaches to the implementation of the curriculum, the level of curriculum implementation, decisions regarding learning products (Fullan and Pomfret, 1977) are related to teachers' consciousness of their roles in the implementation of the curriculum (Tokgöz, 2013), how teachers adapt to changing curricula (Gökçek, 2008), how a transition from a teacher-centered approach to a learner-centered approach would affect roles within the organization are all related to curriculum commitment (Bümen, et al., 2014; Bümen, 2019). Previously, issues regarding the sources of challenges encountered during the implementation of novelties in the curriculum were regarded as a "black box" (Fullan and Pomfret, 1977). Most scientific curricula are implemented in different contexts and are developed based on different learning outcomes. The concept of curriculum commitment, also named as curriculum adherence or curriculum integrity, which focuses on problems emerging in the implementation of novelties in the field of education, necessitates the identification of how well these novelties are implemented when compared with the original form of the curriculum design (Mihalic, 2002). According to Becker (2002), commitment to the curriculum is the degree of consistency between the curriulum elements defined by curriculum developers and the implementation of this curriculum. Curriculum commitment is the teachers' and other stake holders' implementation of the designed curriculum by remaining loyal to its original form. It has been reported in the literature that with the identification of curriculum commitment, the reasons underlying the success or failure of the novelties, what elements are changed in the curriculum, and the outcomes of these changes can be determined (Bümen et al., 2014; Bümen, 2019). Dusenbury, Brannigan, Falco and Hansen (2003) proposed five dimensions in measuring teachers' commitment to the curriculum: "adherence, dose, the quality of program delivery, participant responsiveness, program differentiation". Adherence is the effective implementation of the elements of the curriculum, such as materials and activities. Dose referes to the frequency, quantity, and duration of the curriculum. The quality of program delivery is the way the pedagogical techniques recommended in the curriculum are enacted by the implementers of the curriculum. Participant responsiveness is an indicator of the levels at which individuals participating in the program develop ownership of the novelties in the curriculum. Finally program differentiation refers to the features that distinguish the new curriculum from similar or prior curricula (Dusenbury et al., 2003).

TEACHER AUTONOMY

Öztürk (2012) states that the teacher, who is one of the most important elements that play a role in the implementation of the target approaches of curricula, is given limited authority to regulate the education process. Reforms in education have raised discussions in autonomy,

adaptation and control in curricula (Archbald and Porter, 1994). Adapting to the reforms for the improvement of education has a considerable impact on each professional teacher's feelings of autonomy (MacBeath, 2012).

Short (1992) identifies autonomy "as a dimension of empowerment, [which] refers to teachers' beliefs that they can control certain aspects of their work life. This may be control over scheduling, curriculum, textbooks, and instructional planning. The hallmark of autonomy is the sense of freedom to make certain decisions" (p. 12). Ingersoll (2003) defines teacher autonomy as a dimension of power that is "a function of the extent to which teachers influence the decisions that are most central to their work" (p. 47). Teacher autonomy can be defined as teachers' being able to plan and implement their professional activities, to use their own discretions in the arrangement of the work environment, and to participate in administrative processes (Pearson & Moomaw, 2005). While Özaslan (2015) defines teacher autonomy as the possibility for teachers to implement their own decisions in work life (p. 26), Bümen (2019) defines it as teachers having certain authorities and freedom in topics related to their profession and in decision making processes (p. 178). According to Çolak (2016), teacher autonomy is having the right to make decisions as regards the education process, school and students.

Öztürk (2011) listed the dimensions of teacher autonomy as the planning and implementation of education, participiptation in important decisions regarding education and school management, and the development of teachers' professional knowledge and proficiency.

The autonomy to be granted to teachers is categorized in the related literature as the planning and implementation of education (Freidman, 1999; Pearson & Hall, 1993; Öztürk, 2012), participation in the management process (Freidman, 1999; Ingersol, 2007; Öztürk, 2012) and professional development (Steh and Pozarnik, 2005). Autonomous teachers can effectively and comprehensively reflect their own preferences and decisions onto their teaching based on students' interests and needs (Short, 1992; Pearson and Moomaw, 2005). Moreover, autonomy refers to the ethical responsibility of teachers and the competency they acquired (Steh and Pozarnik, 2005). Teacher autonomy is associated with discipline and evaluation policies (Ayral et al., 2014) as well as with student success (Ayral et al.; TEDMEM, 2015). Schools that are managed democratically support teachers and teacher autonomy with decisions that impact student success (Lepine, 2007). Research studies show that, compared with people in traditional professions, teachers have limited power or control over key decisions that influence their work (Ingersoll, 2007). A common thread that appears when one investigates teacher motivation, teacher empowerment, and teacher stress and burnout is teacher autonomy. Hence, government officials, school board members, and principals must recognize and meet the need for teacher autonomy if they wish to motivate and empower teachers, minimize teacher stress, and prevent teacher burnout (Moomaw, 2005). It may be difficult for a centralized curriculum to meet regional and local students' needs. Therefore, studies on teacher autonomy are important in education in the area of curriculum studies (Bümen, 2019).

In teacher autonomy, an important concept is "adaptation," which is the understanding that curriculum materials are changed as they are implemented and that teachers also undergo change as they use the materials (Burkhauser and Lesaux, 2015). The approach of each teacher toward a curriculum must be one of adaptation, which involves creating, omitting and replacing. Teachers 'enact' curriculum materials as they read, evaluate and adapt them; for example, teachers adapt materials by adding or omitting lesson activities, increasing or decreasing teacher control over an activity, or changing the amount of time spent on an activity (Drake and Sherin, 2009).

Furthermore, it is stated that the patterns of adapting a curriculum to a class involves skipping, expanding, and reorganizing (Bümen and Yazıcılar, 2020). Öztürk (2012) regards

teacher autonomy as a condition where teachers abide by the curriculum but also a condition in which teachers' preferences and decisions are effective. The flexibility of the curriculum is a considerably important factor. The curriculum needs to leave teachers space so that they can reflect their own individual decisions in teaching. It is exactly for this reason that MacDonald (2003, p.140) claims that curriculum development experts working independently of schools reduce the impact of the teacher-proof curriculum understanding on teachers' implementation process to a "minimum". The disconnectedness between curriculum "development" and "implementation" left its place to more flexible implementations, such as the "School Based Curriculum Development" understanding, which empowers the teacher further and includes contextual sensitivity in implementations (Şahin and Kumral, 2013). There is a need for studies on such areas as the relationship between the teacher and the curriculum, how curricula are adapted, what kinds of adjustments are made and to what extent they can be made, the dilemmas experienced during the adjustments, what kinds of outcomes simplified curricula produce, what kinds of adjustments develop children further, the dimensions of the expected and needed teacher autonomy, and relationships between teacher autonomy and adjustments (Bümen, 2019). Teachers can implement a curriculum as stated in documents or make some changes and adjustments (Tokgöz, 2013). By stating that teachers should have roles extending beyond being solely the implementer of the curriculum in areas of curriculum implementation or in all in-class activities, it is advocated that the teacher should have an autonomous character (Yazıcılar and Bümen 2015, Öztürk, 2011). In brief, teachers are expected to establish a balance between commitment to the curriculum and teacher autonomy (Becker, 2002; Bümen, 2019). Accordingly, the present study aimed to identify teachers' commitments to the curriculum and teacher autonomy behaviors.

THE PURPOSE OF THE STUDY

The purpose of the present study was to reveal the relationship between teachers' commitment to the curriculum and teacher autonomy. To this end, the answers to the following research questions were sought:

    1. What are the levels of teachers' commitment to the curriculum?

    2. What are the levels of teachers' teacher autonomy behaviors?

    3. Is there a significant difference in teachers' commitment to the curriculum and teacher autonomy behaviours in terms of

        a. gender,

        b. professional experience,

        c. the faculty of graduation,

        d. the existence of a post-graduate degree, and

        e. the condition of being a branch teacher?

4. Is there a relationship between teachers' commitment to the curriculum and the sub-dimensions of the teacher autonomy behaviors? If so, what is the level of this relationship?

METHOD

This section presents information on the research design, the population and sample, data collection instruments, and the data collection and analysis processes employed in the present study.

RESEARCH DESIGN

Both the descriptive survey and the relational survey research design approaches, within the scope of quantitative study approaches, were adopted. The responses to the first, second, and third sub-questions of the study were sought by utilizing the descriptive survey. Descriptive studies make a complete and comprehensive description of a given situation or phenomenon.

The most prevalently used descriptive research design in the field of education is the survey (Fraenkel, Wallen and Hyu, 2012, p.15). The survey is the method which is used for the purpose of identifying certain characteristics of a group. In the descriptive survey method, questions are asked to a high number of people via forms such as questionnaires administered online, in person or by mail (Fraenkel, Wallen and Hyu, 2012, pp.12-13). The response to the fourth sub-question was sought by means of relational research. Relational studies are utilized when the aim is to reveal the relationship between more than one variable or when the aim is to make inferences based on this relationship (Fraenkel, Wallen and Hyun, 2012, p.12).

POPULATION AND SAMPLE

The population of the study consists of teachers working at public and private schools across Turkey. According to the 2019-2020 statistics reported by the National Ministry of Education [MoNE], there is a total of 1,117,686 teachers in Turkey. The sample size was calculated based on predicted items by utilizing the value $z_{a/2=}1.96 \ for \ \sigma = 1.50, d = 0.1 \ and \ a = 0.05$ (Karagöz, 2019):

$$n = \frac{N.\sigma^2.z^2_{a/2}}{d^2(N-1) + \sigma^2.z^2_{a/2}}$$

When the values were placed within the formula in the MS Excel file, the sample size was found to be n=863,69. The research data were collected by means of convenience sampling, which is one of the non-probability sampling methods. In convenience sampling, researchers establish their sample starting from the most accessible respondents. An important limitation that needs to be mentioned at this point is the decrease in generalizability when non-random sampling is utilized in online questionnaires (Cohen, Manion and Morrison, 2018). The condition of the participant teacher not having read the curriculum at all was identified as a criterion of exclusion in the present study. 1138 teachers were accessed within the scope of the study. However, the data analyses were performed with 956 data since data were eliminated based on such reasons as the participant teachers' inappropriate marking of the data, their lack of reading the curriculum, and the outliers that the anlayses yielded. The demographic features of these 956 teachers are presented in Table 1.

Table 1. Teachers' Demographic Characteristics

Variable		Frequency	Percentage
Gender	Female	583	61.0
	Male	373	39.0
Faculty of Graduation	Faculty of Education	725	75.8
	Other Faculties	231	24.2
Type of Teacher	Preschool or primary school teacher	264	27.6
	Branch teacher	692	72.4
Post-graduate degree	No	716	74.9
	Yes	240	25.1
Experience	1-5 years	100	10.5
	6-10 years	166	17.4
	11-15 years	154	16.1
	16-20 years	178	18.6
	21 years and above	358	37.4

It can be observed in Table 1 that more than half of the teachers were female (61%), graduates of the faculty of education (75.8%), and branch teachers (72.4%). It is noticeable that 25% of the teachers held a post-graduate degree. Furthermore, 10.5% of the teachers had teaching experience ranging between 1-5 years, while 37.4% of the teachers had an experience of 21 years and above.

DATA COLLECTION INSTRUMENTS

In the present study, data were collected via the Curriculum Commitment Scale and the Teacher Autonomy Scale. The Teacher Autonomy Scale, which was used to identify the teachers' autonomy behaviors, was developed by Çolak and Altınkurt (2017) by using data obtained from teachers. To determine the participants' degrees of agreement with the items in the scale a 5-degree Likert scale was used: (1) I completely disagree, (2) I disagree, (3) I modertaely agree, (4) I agree, (5) I completely agree. The Scale consists of 17 items categorized under four factors: teaching process autonomy, the curriculum autonomy, professional development autonomy, and professional communication autonomy. The variance ratio explained by the four factors was found to be 63.84%. The goodness fit indices that the confirmatory factor analysis yielded were found to be as follows: $\chi 2/sd = 2.23$, GFI = .90, AGFI = .86, RMSEA = .06, SRMR = .06, CFI = .97, IFI = .97, NFI = .94, NNFI = .96, PGFI = .66. The Cronbach Alpha internal consistency coefficient for the whole scale was found to be .89, while the coefficients of the dimensions of the scale were as follows: .82 for the teaching process autonomy, .82 for the curriculum autonomy, .85 for the professional development autonomy, and .78 for the professional communciation autonomy. The Cronbach Alpha internal consistency coefficient for of the whole scale in the present study was found to be .83, while the coefficients of the scale dimensions were found to be .82 for the teaching process autonomy, .77 for the curriculum autonomy, .74 for the professional development autonomy, and .74 for the professional communciation autonomy. The Curriculum Commitment Scale was developed by Yaşaroğlu and Manav (2015) by using data obtained from teachers. The scale consists of 20 items, 16 of which are positively and 4 of which are negatively stated. The Cronbach alaph internal consistency coefficient of the single factor scale was calculated to be .892. The single factor structure explained 35.82% of the variance. The response form consists of a 5-point Likert scale: (5)- "I definitely agree, (4)- I agree, (3)-   I am indecisive, (2)- I disagree, (1)- I definitely disagree. The Cronbach alpha internal consistency coefficient within the scope of the present study was calculated to be .90.

DATA ANALYSIS

The statistical anlyses run to respond to the sub-questions of the present study were descriptive analyses, correlation analysis, and MANOVA. According to Pallant (2016), prior to MANOVA, the following prerequisites need to be met: elimination of outliers, the variables displaying a normal distribution and multicollinearity, the existence of a multicollinearity relationship, the non-existence of the singularity problem, and the homogeneity of variance-covariance matrix. Accordingly, all the data were analyzed and no missing data were encountered in the data set. In order to identify single variable outliers, whether the z scores were above +3 or below -3 was checked. The outliers that were not between these two values were excluded from the data set. Moreover, the outliers that appeared on the boxplot were also excluded from the analysis. In the final stage, to evaluate the single variable normality, the skewness and kurtosis coefficients of the variables and the histogram graph with the normal distribution curve were examined. As a measure of the normality assumption, the skewness and kurtosis coefficients need to fall between -1 and +1 (Morgan, Leech, Gloeckner & Barrett, 2004). It was observed that none of the scores were between the ±1 limits and thus the scores did not display a significant deviation from the normal distribution. Hence, the single-variable normality assumption was obtained. To identify whether the variables display multivariate normal distribution, examining whether there are outliers in relation to the variables is recommended. In this way, it is claimed, any outliers that challenge the linearity assumption can be encountered (Büyüköztürk, 2019). To this end, first of all, the Mahalanobis distances for all the dependent variables to be used in MANOVA anlyses were calculated. The data with Mahalanobis distances above 13.82, which was the value identified for the two variables, were removed from the data set. In the

final stage, the Mahalanobis distance values were found to range between .002 and 11.048, which are below 13.82, the value identified for a minimum of two variables (Pallant, 2016). When the Mahalonobis distances obtained in the present study were examined, it was observed that there were no outliers. Upon the examination of the scatterplot graphs of all paired relationships of the dependent variables, it was observed that the graphs were of oval shape and thus there was no condition that threatened linearity. When both variables display a normal distribution and if there is a linear distribution between two variables, the scatterplot graph displays an oval shape (Tabachnick and Fidell, 2013). The correlation analysis conducted to check the multicollinearity yielded a high correlation. The homogeneity assumption of the covariance matrices was tested by utilizing the Box's M Test. In this test, if the p(sig.) value is smaller than 0.05, the assumption cannot be confirmed, but if the p(sig.) value is greater than 0.05, the assumption is confirmed. In the tests conducted, because the p(sig.) value was above 0.05 (p>0.05), it can be said that the homogeneity assumption of the variance-covarince matrices was met. The analyses that were conducted were interpreted based on the percentage, frequency, mean, and standard deviation values of the variables at the significance level of 0.05. The Cohen's d statistic, related to the level at which the significant variance was impacted by the difference between the mean values, was reported. The values obtained by measuring the eta square were interpreted as follows: .01= small effect size, .06= moderate effect size, .14=big effect size (Cohen, 1988).

ETHICALPROCEDURES

The data of the present study were obtained by means of the "online survey". The reason for choosing this technique was based on the fact that it was highly difficult to reach teachers in person as schools were closed during the pandemic. Data were collected via online survey provided by Google Forms. On the first page of the online survey, information regarding the purpose of the study was presented. On the second page, the informed consent button was given. By pressing the "I read and confirm" button, the participants passed on to the questions in the questionnaire. This research was conducted after the Bandırma Social and Humanities Sciences Ethical Association of Onyedi Eylül University approved that the study was ethically appropriate.

FINDINGS/RESULTS

In this section, the results which the analyses yielded are presented respectively under the four sub-questions of the study.

FINDINGS REGARDING TEACHERS' CURRICULUM COMMITMENT LEVELS

The scores that teachers received in the 20-item Curriculum Commitment Scale ranged between 20-100. On the other hand, the scores of the teachers participating in the study were found to fall between 62-100. It was observed that the teachers' mean values in the Curriculum Commitement Scale ($\overline{X}$ =85.32) were above the scale median score. Thus, it can be deduced that teachers remain committed to the curriculum.

Table 2. Descriptive Statistics of the Teachers' "Curriculum Commitment Scale" Scores

Scale	n	Number of Items	min	max	$\overline{X}$	s
Curriculum Commitment	956	20	62.00	100.00	8.,32	8.31

FINDINGS REGARDING TEACHERS' AUTONOMY BEHAVIORS

The score that teachers can get from the 17-item teacher autonomy scale ranges between 17 and 85. The scores of the teachers participating in the present study were observed to fall between 46 and 85. Hence, the teachers' mean scores from the Teacher Autonomy Scale ($\overline{X}$=66.19) were found to be above the median value of the scale. Thus, it can be deduced that

teachers displayed autonomous behaviors. In the sub-dimensions of teaching process autonomy, curriculum autonomy, professional development autonomy, and professional communication autonomy, it was found that teachers received scores that were above the mean score value. Thus, it can be deduced that teachers displayed autonomous behaviors in the teaching process, the curriculum, professional development anad professional communication /.

Table 3. Descriptive Statistics of the Teachers' "Teacher Autonomy Scale" Scores

Scales	n	Number of Items	min	max	$\overline{X}$	s
Teacher Autonomy	956	17	46,00	85,00	66,19	7.91
Teaching Process Autonomy	956	6	11.00	30.00	23,73	3.39
Curriculum Autonomy	956	5	7.00	25.00	19,27	3.11
Professional Development Autonomy	956	3	3.00	15.00	11.38	2.41
Professional Communication Autonomy	956	3	3.00	15.00	11.81	2.28

FINDINGS REGARDING CURRICULUM COMMITMENT AND TEACHER AUTONOMY BEHAVIORS BY GENDER

When the MANOVA results in Table 4 are examined, statistically significant difference can be observed between the independent variables of female and male, F(2,953)=5.12; p=.006; Wilks' Lambda=.99; Partial Eta Squared=.01.

  a. *Variance by Gender;*

Table 4. The MANOVA Results of Teachers' Curriculum Commitment and Teacher Autonomy Behaviors by Gender

Independent Variable	Wilks' Lambda	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Gender	.99	5.12	2.00	953.00	.006	.011

In Table 5, the results obtained for the dependent variables are addressed separately and the between-subjects effects are presented.

Table 5. Tests of Between-Subjects Effects and Group Mean Scores by the Gender Variable

Dependent Variable	Gender	n	$\overline{X}$	s	df	Mean Square	F	Sig.	Partial Eta Squared
Curriculum Commitment	Female	583	85.92	7.98	1	543.04	7.92	.005	.008
	Male	373	84.38	8.72					
Teacher Autonomy	Female	583	66.09	7.91	1	13.71	.22	.640	.000
	Male	373	66.34	7.92					

It can be observed in Table 5 that there is a significant difference between the female and male teachers' scores in the dependent variable of commitment to the curriculum: F(1,955)=7.92; p=.005; Partial Eta Squared=.008. When mean scores are examined, it can be seen that female teachers, when compared with male teachers, have a higher level of commitment to the curriculum. However, the effect size is small, and no significant difference is found between females and males in terms of teacher autonomy.

  b. *Variance by Professional Experience;*

The MANOVA results in Table 6 shows that there is no statistically significant difference in terms of the independent variable of professional experience: F(8, 1900)=1.01; p=.427; Wilks' Lambda=.99; Partial Eta Squared=.01. That is, the teachers' commitment to the curriculum and autonomy behaviors do not vary based on professional experience.

Table 6. The MANOVA Results of Teachers' Curriculum Commitment and Teacher Autonomy Behaviors by Experience

Independent Variable	Wilks' Lambda	F	Hypothesis df	Error df	Sig.	Partial Eta Squared

Professional Experience	.99	1.01	8.00	1900.00	.427	.004

c. Variance by Faculty of Graduation;

The examination of the MANOVA results in Table 7 shows that there is a significant difference between the independent variables of graduation from an education faculty and non-education faculty, F(2,953)=5.33; p=.005; Wilks' Lambda=.99; Partial Eta Squared=.011.

Table 7. The MANOVA Results of Teachers' Curriculum Commitment and Teacher Autonomy Behaviors by Graduation

Independent Variable	Wilks' Lambda	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Faculty of Graduation	.99	5.33	2.00	953.00	.005	.011

In Table 8, the results obtained for the dependent variables are addressed separately, and the between-subjects effects are presented.

Table 8. Tests of Between-Subjects Effects and Group Mean Scores by the Variable of Faculty of Graduation

Dependent Variable	Faculty of Graduation	n	$\bar{X}$	s	df	Mean Square	F	Sig.	Partial Eta Squared
Commitment to the Curriculum	Education	725	85.35	8.37	1	2.86	.04	.839	.000
	Non-Education	231	85.22	8.14					
Teacher Autonomy	Education	725	66.64	8.01	1	608.34	9.82	.002	.010
	Non-Education	231	64.77	7.42					

Upon examination of the values in Table 8, it can be observed that there is a significant difference between the dependent variables of being a graduate of an education faculty or a non-education faculty in terms of teacher autonomy scores: F(1, 954)=9.82; p=.002; Partial Eta Squared=.01. The mean scores show that the teachers who are graduates of a education faculty display higher levels of autonomy behaviors. However, the effect size is small, and there is no significant difference in terms of commitment to the curriculum.

d. Variance by Post-Graduate Degree;

When the MANOVA values in Table 9 are examined, it can be observed that there is no statistically significant difference between having or not having a post-graduate degree: F(2,953)=5.33; p=.531; Wilks' Lambda=.99; Partial Eta Squared=.001. That is, teachers' commitment to the curriculum and their autonomy behaviors do not vary based on post-graduate education.

Table 9. The MANOVA Results of Teachers' Curriculum Commitment and Teacher Autonomy Behaviors by Post-Graduate Degree

Independent Variable	Wilks' Lambda	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Post-graduate degree	.99	.63	2.00	953.00	.531	.001

e. Variance by the Condition of Being a Branch Teacher;

The MANOVA values in Table 10 show that there is a statistically significant difference between being a branch teacher and not being a branch teacher: F(2,953)=518.31; p=.000; Wilks' Lambda=.96; Partial Eta Squared=.037.

Table 10. The MANOVA Results of Teachers' Curriculum Commitment and Teacher Autonomy Behaviors by the Condition of Being a Branch Teacher

Independent Variable	Wilks' Lambda	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Being a Branch Teacher	.96	18.31	2.00	953.00	.000	.037

In Table 11, the results for dependent variables have been addressed separately and the between-subject effects are presented.

Table 11. Tests of Between-Subjects Effects by the Variable of Being a Branch Teacher Condition and Group Mean Values

Dependent Variable	Branch	n	$\overline{X}$	S	df	Mean Square	F	Sig.	Partial Eta Squared
Curriculum Commitment	Preschool and Primary School	264	87.50	7.67	1	1737.12	25.81	.000	.026
	Branch	692	84.49	8.40					
Teacher Autonomy	Preschool and Primary School	264	68.14	8.03	1	1384.35	22.64	.000	.023
	Branch Teacher	692	65.45	7.74					

When Table 11 is examined, it can be observed that there is a statistically significant difference between the branch teachers and non-branch teachers in terms of both curriculum commitment (F(1, 954)=25.81; p=.000; Partial Eta Squared=.026) and teacher autonomy behaviors (F(1, 954)=22.64; p=.000; Partial Eta Squared=.023. The mean scores show that preschool and primary school teachers have higher levels of curriculum commitment and autonomy behaviors. The effect size is small.

FINDINGS REGARDING THE RELATIONSHIP BETWEEN TEACHERS' CURRICULUM COMMITMENT AND AUTONOMY BEHAVIORS

According Büyüköztürk (2019), coefficients smaller than 0.30 show a low correlation, those between 0.30 and 0.70 show a moderate degree of correlation, and those above .70 display a high correlation.Thus, when the pearson correlation coefficients in Table 12 are intrepreted based on these criteria, it can be observed that there is a moderate level of positive correlation between teacher autonomy and curriculum commitment (r=.340).

Table 12. The Relationship between Curriculum Commitment and the Sub-Questions of Autonomy Behaviors of Teachers

	Curriculum Commitment	Teacher Autonomy	Teaching Process Autonomy	Curriculum Autonomy	Professional Development Autonomy	Professional Communication Autonomy
Teacher Autonomy	.340**	1	-	-	-	-
Teaching Process Autonomy	.259**	.808**	1	-		-
Curriculum Autonomy	.231**	.759**	.552**	1	-	-
Professional Development Autonomy	.211**	.635**	.288**	.283**	1	-
Professional Communication Autonomy	.255**	.560**	.262**	.150**	.330**	1

**p<0.001, n=956

When the relationships between teachers' commitment to the curriculum and the sub-dimensions of teacher autonomy were examined, it was revealed that was a low level of positive correlation between curriculum commitment and teaching process autonomy (r=.259), curriculum autonomy (r=.231), professional development autonomy (r=.211), professional communication autonomy (r=.255). On the other hand, a high level of positive correlation was found between teacher autonomy and curriculum commitment (r=.759) and teaching process autonomy (r=.808).

DISCUSSION AND CONCLUSION

This research was carried out to find an answer to the first sub question of "what are the levels of teachers' commitment to the curriculum?" Based on the results of the present study, it can be concluded that teachers are committed to the curriculum and they display teacher autonomy behaviors. Similarly, autonomy scores with respect to teaching process, curriculum, professional development and professional communication were observed to be high. Similar to the results in the present study, Aslan and Erden (2020) reported that even though teachers' levels of commitement to the curriculum were high, mean scores for the variables of duration, differences among curricula, and teacher education remained at a moderate level. Moreover, Burul (2018) stated that teachers' commitment or "adherence" to the curriculum in terms of the dimensions of "dose", "the quality of program delivery", "participant responsiveness", and "program differentiation", teacher education, and school climate dimensions had high mean scores. Moreover, Darama, Karaduman, Kahraman and Gundoğdu concluded that as a result of the interviews made with the teachers those who implement the curriculum are undecided about the curriculum (2018). Tokgöz (2013) maintained that even if teachers remained committed to the curriculum, how the materials should be used was not expressed clearly in the curriculum, and thus, the textbooks provided for guidance throughout the implementation within the scope of the centralized curricula made teachers remain committed to the centralized curriculum. Moreover, Bümen, Çakar and Yıldız (2014) maintained that a renewal in the curriculum did not gaurantee novelties in class and teacher behaviors.

Different from the results that the present study yielded, Yazıcılar (2016) reported that even though teachers had the perception that they needed to strictly abide by what was stated in the program of the yearly plan, they made many adjustments during the teaching process. Dikbayır and Bümen (2016) revealed that the teachers who were interviewed in different high schools were found to be displaying low levels of behaviors in the dimension of curriculum commitment. In another study (Han, 2013), it was revealed that teachers' levels of commitment to the curriculum were low, while their functional paradigms were close to the original curriculum. Bay, Kahramanoğlu, Döş and Turan Özpolat (2017) revealed in a study conducted with science teachers that the mismatch between topic distribution and the time allotted were factors impacting commitment to the curriculum. Even though teachers remained committed to the curriculum, as stated by Becker (2002), curricula do not come in a single size to fit all. Strict commitment to curricula can cause needs to be overlooked. Becker (2002) and Bümen (2019) suggest that there needs to be a balance between commitment to and adjustment of the curriculum. According to Furtak et al. (2008), studies that investigate the match between the intended curriculum, the enacted curriculum and the achieved curriculum shed light on commitment to the implementation of the curriculum. In the present study, based on the finding that the overall mean scores of teachers' commitment to the curriculum were observed to be high, it can be stated that teachers do not leave educational conditions to random implementations, that the centralized curriculum guides them, and they adopt changes made in the curriculum.

Regarding teacher autonomy answering the question "what are the levels of teachers' teacher autonomy behaviors?." That the findings of the present study revealed that teachers displayed autonomy behaviors, with high autonomy sub-scores obtained in the dimensions of teaching process, curriculum, professional development and professional communication is consistent with some findings reported by other studies in the literature (Öztürk 2012; Üzüm 2014, Yazıcı; 2016, Yorulmaz, Çolak and Çiçek-Sağlam 2018; Tokgöz Can, 2019). Öztürk (2012) reported that teachers were autonomous in the process of teaching as they were observed to include some topics that were not in the curriculum in their scope of teaching, to address

topics differently from how they were prescribed in the curriculum, to cover some topics more comprehensively than they were suggested in the annual plan, and to pass some topics quickly. In an experimental study conducted in Estonia by Errs et al. (2014), it was reported that teachers' participation in local decisions regarding centralized programs increased their professional autonomy perceptions. Different from the results of the present study with respect to autonomy, Şakar-Aslan (2013) stated that centralized exams prevented teachers from establishing a teaching approach peculiar to themselves. Güvenç (2011) reported that primary school teachers supported students' autonomy but did not provide students with sufficient decision making opportunities. The reason why teacher autonomy behaviors were at a high level in the present study could be attributed to the fact that teachers could reflect their own decisions and preferences in teaching methods and materials (Pearson and Moomaw, 2005).

As for third sub question is whether a significant difference in teachers' commitment to the curriculum and teacher autonomy behaviours in terms of gender, it was observed that female teachers were more committed to the curriculum when compared with male teachers. As for teacher autonomy behaviors, no significant difference emerged between female and male teachers.

Different from this result regarding commitment to the curriculum, no significant difference by gender was reported by Aslan and Erden (2020) in relation to primary school teachers and by Burul (2018) as regards primary and secondary school teachers. However, similar to the findings of the present study, Tokgöz Can (2019), Şakar-Aslan (2013), and Çolak and Altınkurt (2017) reported that there was no significant difference between teachers' autonomy behaviors and gender. Different from this finding, Yazıcı (2016) identified a significant difference between the teaching process and the curriculum autonomy sub-dimensions. Üzüm, (2014), Çelik (2016), and Yorulmaz et al. (2018) stated that male teachers' general autonomy perceptions were higher.

In the present study, in terms of professional experience, no significant difference was observed between teachers' commitment to the curriculum and their teacher autonomy behaviors based on professional experience.

In consistency with the results of the present study, commitment to the curriculum by primary school teachers as reported by Aslan and Erden (2020) and by primary and secondary teachers as stated by Burul (2018) did not show variance by professional experience. Furthermore, in a case study on Target Oriented Curriculum (TOC) conducted with three experienced teachers in Hong Kong by Carless (2001), it was revealed that while one teacher displayed behaviors predisposed to TOC, the other two teachers learned about the curriculum while they implemented it. Hence, based on the results of both this study and other related studies, it can be stated that teachers' being experienced or novice did not have an impact on curriculum commitment.

On the other hand, different from the results obtained in the present study, Egeler (as cited in Yıldırım, 2003) stated that experienced teachers had the tendency to prepare their daily lesson plans in a detailed manner and to use more teaching routines. Moreover, Burkhauser and Lesaux (2015) expressed that senior teachers were able to modify their program materials more effectively by taking into consideration both student needs and regional standards. The novice teachers followed the curriculum more closely and were more open to the lessons that the new curriculum could teach them. Most of the experienced teachers, on the other hand, resisted using and learning from the new materials; they tended to adopt or adapt the materials without fully engaging with them. In doing so, the authors suggest that these teachers may have missed opportunities that the novice teachers were able to capitalize on.

The finding that teacher autonomy behaviors do not show variance by professional experience is consistent with the finding reported by Çelik (2016). Different from this result, Yılmaz et

al. (2018) revealed that senior teachers believed that the school environment did not support autonomy very much. In a study by Canbolat (2010), it was revealed that teachers with low experience adopted educational autonomy more readily than experienced teachers did, but that senior teachers' education autonomy were more applicable. According to MacBeath (2012), teachers with a higher level of autonomy felt a higher level of job satifaction, motivation and self-efficacy.

In the present study, related to the faculty of graduation, teachers who graduated from a education faculty were observed to display a higher level of teacher autonomy behaviors when compared to non-education faculty graduates. However, no significant difference was found between their commitment to the curriculum.

In consistency with this finding, Burul (2018) also revealed that teachers' commitment to the curriculum did not show variance in all the sub-dimensions based on the type of school graduated from. The reasons underlying this could be attributed to the fact that teachers who graduate from different education institutions do not perceive teaching as a job finding anxiety, that they give importance to their life-long learning, that they can make adaptations based on their own style, and that the quality of the education provided to the students display similarity.

In contrast to the findings of the present study, Üzüm (2014) revealed that graduates from a non-education faculty had higher levels of autonomy perceptions. That teachers are found to have high levels of autonomy behaviors in this and other related studies is important with respect to the quality of the education provided. However, different from the present study, Özaslan (2015) revealed that participants from different types of school had common perceptions regarding the results of teacher autonomy dimensions and lack of autonomy. This condition could also be evaluated positively with respect to teachers' professional development autonomy. Anderson (1987) states that teacher autonomy development could, like a mirror, be reflective of teacher experience and status.

In the present study, regarding the existence of a post-graduate degree, it was revealed that teachers' commitment to the curriculum and their teacher autonomy behaviors varied depending on whether or not they held a post-graduate degree.

In consistency with this finding, Çelik (2016) and Tokgöz Can (2019) reported that teacher autonomy did not vary with respect to level of education. However, Aslan and Erdem (2020) found that secondary teachers' commitment to the curriculum varied by level of education. Şahin and Kumral (2013) stated that most teacher candidates held a "fixed" image that indicated a perspective where the curriculum could not be changed and that its content that needed to be strictly followed, and they perceived the teacher as a "technician". However, teacher autonomy is regarded as a prerequisite for teachers' own professional growth and also a result of professional training (Steh and Pozarnik, 2005). In the related literature, no curriculum commitment studies in terms of the post-graduate variable was encountered. However, it is stated in the literature that a transformation in teachers' mind-set is needed with respect to how the curriculum and the teaching profession are viewed during the preservice teacher training (Şahin and Kumral, 2013).

It was revealed in the present study that concerning the condition of being a branch teacher, when compared to branch teachers, preschool and primary school teachers displayed higher levels of commitment to the curriculum and teacher autonomy behaviors.

In consistency with this finding, Burul (2018) reported that primary school students were more committed in the school climate dimension when compared to secondary and high school students (Moomaw, 2005). Pence, Justice and Wiggins (2008) stated that preschool students remained more committed to the quality of Language focused curriculum (LFC) implementation. In another study byÇobanoğlu (2011), it was found that the beliefs of preschool teachers significantly predicted the way the curriculum was implemented. Hence,

the finding reported in this and other related studies that preschool and primary school teachers remained committed to the curriculum at a higher level than branch teachers could be attributed to the fact that teachers have lower-aged students, the curriculum includes holistic (mihver) subjects, the students possess holistic perception styles, and the students are given a lot of homework assignments. The relevant finding of the present study is also consistent with the situation the writers have stated.

Similar to the finding that preschool and primary school teachers display higher levels of teacher autonomy behaviors, Çolak and Altınkurt (2017) also stated that preschool and primary school teachers displayed higher levels of autonomy behaviors in the dimensions of teaching process and the curriculum when compared with vocational high school teachers. The lowest level of autonomy behaviors with respect to teaching process were identified among high school and vocational high school teachers. Different from this finding, Tokgöz Can (2019) stated that teacher autonomy did not vary based on the branch of the teacher. Furthermore, Öztürk (2012) reported that no significant difference was observed in the annual plans prepared by different teachers. According to the writer, when this situation is evaluated in terms of teacher autonomy, the impact of teachers' preferences and decisions are highly limited. Lepine (2017) stated that due to the complicated management structure of school, teachers' autonomy can change as ruled.

It is stated that schools that run in a bureaucratic manner do not value their teachers' opinions during decision making processes and that this prevents the development of teacher autonomy. That there was a significant difference between teacher autonomy behaviors in terms of the branch variable in the present study could be attributed to the fact that preschool and primary school teachers are together with their students for more than one academic year, learning is based on play, teachers closely witness their students' development in terms of cognitive, affective, and transformational learning, there are more social activities, and there are more frequent meetings with parents. All these are believed to increase teacher autonomy.

In the present study, related to the last sub question, a moderate level of positive relationship was observed between teacher autonomy and commitment to the curriculum. However, a low level of positive relationship was observed between the teachers' commitment to the curriculum and the teaching process autonomy, curriculum autonomy, professional development autonomy and professional communication autonomy.

Thus, if teachers' commitments to the curriculum is in positive development, their autonomy behaviors improve. Webb (2002) conducted an interpretive case study in the Washington, USA, with 5 teachers and a school principal at a state school to investigate how teachers made use of autonomy. Teachers used their autonomy to make changes in the centralized curriculum after identifying their students' academic and emotional needs. Hence, it is observed that teachers' autonomy domains are in line with their professional beliefs and their professional education services and that their authority and participation in decisions are supported. These conditions increase commitment to the curriculum and thus the balance between these two elements would be established.

The present study revealed that there was a high level of positive relationship between teacher autonomy and curriculum and teaching process autonomies. In accordance with the finding, there are significant relationships among teacher autonomy dimensions. The strongest relationship is between curriculum autonomy and teaching process autonomy. Accordingly, the more teachers are autonomous in the curriculum, the more autonomous behaviors they display in the teaching process. This condition, which does not allow for the exact enaction of the curriculum in the literature, is explained with the concept of adaptation (Bümen, 2019). By making use of matrices, Drake and Sherin (2009) explained the strategies that teachers used before, during and after the implementation of the renewed curriculum to read, evaluate and use adaptation strategies such as replacing, creating, and omitting and revealed that

teachers made used of a wide variety of adaptation strategies owing to their prior experiences. Furthermore, it was reported by Yazıcı (2016) that among the autonomy dimensions, teachers displayed professional communication the most, while in other studies (Çolak and Altınkurt, 2017; Tokgöz- Can, 2019), it was reported that they displayed autonomy in the teaching process and professional development autonomy the most. With respect to adaptation, Bümen and Yazıcılar (2020) determined the following: While teachers at state high schools made adaptations in order to complete learning gaps, teachers at private high schools focused on increasing success and on preparing students for the university entrance exams. Thus, it can be claimed that teachers' curriculum adaptation behaviors are dependent on their professional experience and teaching styles (Drake and Sherin, 2009) or on the perception of autonomy within the school environment (Bümen and Yazıcılar, 2020). It was conlcuded in the present study also that despite centralized curricula, teachers displayed high levels of autonomy behaviors. That teachers display near-high levels of autonomy behaviors is important for the quality of education.

SUGGESTIONS

1) Even if teachers remain committed to the curriculum, the adjustments made should be compared with respect to their alignment with the original curriculum. As there are different findings regarding teacher autonomy behaviors, studies employing mixed designs could be conducted to investigate teaching process autonomy.

2) As there are different results regarding teacher autonomy in the literature, qualitative research studies could be conducted on the autonomy provided to teachers.

3) The reasons underlying differing findings with respect to the professional experience variable should be addressed in more depth in future studies.

4) In future studies teachers as a source could be categorized and quantitative studies on levels of autonomy dimensions and case studies examining how autonomy is implemented can shed light on the details of this topic.

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