



The Contribution of Teachers' Curriculum Literacy on Their Curriculum Fidelity

Akın Karakuyu^a *

^a *Hatay Mustafa Kemal University, Hatay, Turkey*

Abstract

Having sufficient knowledge about the curriculum implemented by teachers can be expressed as curriculum literacy. The knowledge that teachers have about the curriculum will closely affect whether they apply it as designed, in other words, their fidelity. In this context, the aim of the study is to examine the contribution of teachers' curriculum literacy to their curriculum fidelity. The study was conducted using the correlational survey model, which is one of the quantitative research types. The research group consisted of 252 teachers determined by convenience sampling technique. The "Curriculum Literacy Scale" and the "Curriculum Fidelity Scale" were used to collect data. Mean, standard deviation, percentage, frequency, MANOVA, correlation, regression, and hierarchical regression analyses were used in the data analysis. According to the analysis results, teachers' curriculum literacy and curriculum fidelity levels were at high level. There was no significant difference in curriculum literacy and curriculum fidelity levels if the teachers by year of work experience, the socio-economic environment of the school, and education science exam score variables. However, there was a significant difference in curriculum fidelity level of the teachers by school level variable in favor of primary school teachers. Furthermore, a moderate, positive, and significant relationship was found between teachers' curriculum literacy and curriculum fidelity levels. The contribution of teachers' curriculum literacy to their curriculum fidelity level was found as 41.5%.

Keywords: Curriculum; curriculum literacy; curriculum fidelity

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1. Introduction

Human beings are more trainable and also in greater need of education compared to other beings. Additionally, humans have a structure that constantly develop in every sense. Due to these characteristics, it is possible to achieve the development and

* Corresponding author: Akın Karakuyu. ORCID ID.: <https://orcid.org/0000-0001-7370-5464>
E-mail address: karakuyuakin@gmail.com

transformation of humans through education. In order for education to be organized in line with these needs, important roles are assigned to curriculum and teachers.

Curriculum contributes to directing the teaching and learning process, training qualified individuals, achieving social development, and increasing the quality and efficiency of education (Özdemir, 2012). The curriculum is defined as a pre-prepared table that specifies why teaching is being done, what will be included in the content, which tools and methods will be used, where, at what time, and with whom it will be done (Uşun, 2016). Teachers play a leading role as implementers of the curriculum in achieving success. In this context, the teachers' fidelity to the curriculum and their level of literacy, which refers to how well they interpret and implement the curriculum, are emphasized.

Curriculum fidelity refers to the full implementation of the curriculum by teachers, minimizing the differences between the official program and the applied program (Hill, Snelgrove-Clarke & Slaughter, 2014). Curriculum fidelity is related to the implementation part of the program and expresses the level of implementation by teachers according to what the program designers have aimed for (Pence, Justice, and Wiggins, 2008). Therefore, this term refers to the implementation of a newly designed or expert-organized program according to the planned format by teachers, who are the implementers of the curriculum.

Curriculum in education is designed to help learners achieve the predetermined goals. Fidelity to the curriculum is important to evaluate how effective the program is in producing effective results (Dikbayır and Bümen, 2016). Fidelity will help determine the relationship between the program and its outcomes, provide information to experts about the process, and enable the effectiveness of the program to be demonstrated (Bümen, Çakır, and Yıldız, 2014). During the implementation process of the curriculum, positive or negative results may emerge. Determining which of these results are related to the curriculum fidelity, and which ones are not, will provide feedback on the degree of curriculum fidelity, and whether the expected outcomes are achieved (Karakuyu and Oğuz, 2021). High teacher fidelity to the curriculum is associated with strong implementation effects (Durlak and DuPre, 2008). In addition, curriculum fidelity reduces the likelihood of Type-3 errors during the implementation process and provides information on how changes or innovations in the program affect their applicability (Dusenbury et al., 2003). Fidelity is necessary for evaluating and organizing the curriculum, determining the effectiveness of improvements and applications, achieving targeted outcomes, and ensuring quality (Gelmez Burakgazi, 2019). Because curriculum development is a cyclical and structured process, teacher fidelity to the curriculum is important for the continuity of the process.

Bond et al. (2000) described the measures of curriculum fidelity in four dimensions: purpose, content, timing, and audience. The purpose dimension can be used to monitor

progress and detect deviations in the process, as well as to document consistency by comparing programs to standards. The content dimension involves measuring fidelity using sample programs. In the timing dimension, fidelity measures can be conducted on the target audience once or at multiple intervals during the development of a new program or at any stage after implementation.

The first step in the success of any plan is to know and recognize the plan well. If we consider the curriculum as a plan, it can be said that there is a relationship between curriculum literacy, which refers to knowing, being aware of and making sense of the curriculum and curriculum fidelity (Yılmaz and Kahramanoğlu, 2021). To reach the targeted point with curriculum and to ensure application integrity, the curriculum must be correctly understood and implemented by teachers. At this point, the concept of curriculum literacy, which means awareness and understanding of the curriculum comes to the forefront (Yıldırım, 2019). For teacher fidelity to the curriculum, teachers need to have skills such as adapting to changes made in the program, generating solutions to problems encountered during implementation, and fulfilling them completely. These skills, which refer to a high level of curriculum literacy, are necessary (Keskin, 2020). Curriculum acts as a guide in achieving the predetermined objectives. Teachers responsible for implementing the curriculum to achieve these objectives need to read this guide correctly and stay committed to it.

Curriculum literacy is the ability of teachers, who are the implementers of the educational program, to examine the program by asking the questions of why, what, how much, and how, and to reach the correct thought structure by thinking about the answers (Yıldırım, 2019). In other words, curriculum literacy refers to having sufficient knowledge about the elements of the curriculum (Bolat, 2017). The aim of curriculum literacy, which can be expressed in its most general and simplest form as understanding the curriculum and adapting it to new situations, is to ensure the understanding and implementation of updated programs in terms of the elements of the curriculum such as objectives, content, teaching-learning process, and assessment (Keskin, 2020). Kasapoğlu (2017), on the other hand, takes these definitions one step further and defines curriculum literacy as knowing the “what” and “how” of the curriculum. By “what”, he means the fundamental elements of the curriculum such as learning outcomes, content, educational situations, and assessment situations, and by “how”, he refers to the ability to apply and critically evaluate the curriculum (Kasapoğlu, 2017).

In order for teachers to implement curriculum successfully and effectively and create a productive classroom atmosphere using appropriate methods and techniques, they need to have a high level of curriculum literacy, which means having knowledge about the curriculum (Özkan, 2016). Being a curriculum literate as a teacher means understanding, knowing, planning, internalizing, interpreting, and analyzing the curriculum correctly, and acting according to the program’s characteristics (Güleş, 2022).

To enable the learners to achieve the designated goals through the education system, it is necessary for teachers to understand the curriculum thoroughly and apply it accordingly. In other words, curriculum literacy can be evaluated as one of the necessary conditions for curriculum fidelity. In this context, the aim of the study is to examine the contribution of teachers' curriculum literacy to their fidelity to the curriculum. In line with this aim, the study consists of a general research question and eight sub-problems.

1.1. Problem statement

What is the contribution of teachers' curriculum literacy to their curriculum fidelity?

Sub-problems

- 1-What are the teachers' curriculum literacy and curriculum fidelity levels?
- 2-Do teachers' curriculum literacy and curriculum fidelity levels differ significantly according to the year of work experience?
- 3- Do teachers' curriculum literacy and curriculum fidelity levels differ significantly according to school level?
- 4- Do teachers' curriculum literacy and curriculum fidelity levels differ significantly according to educational sciences exam score?
- 5- Do teachers' curriculum literacy and curriculum fidelity levels differ significantly according to socio-economic level of the region where the school is located?
- 6- Is there a significant relationship between teachers' curriculum literacy and curriculum fidelity levels?
- 7- Does teachers' curriculum literacy level predict their fidelity to the curriculum?
- 8- Do teachers' curriculum literacy sub-dimensions predict their fidelity to the curriculum?

2. Method

In this part of the study, the research model, study group, data collection tools and data analysis used in the study are presented.

2.1. Research model

The aim of this study is to examine relationship between the teachers' curriculum literacy and their curriculum fidelity levels. In this context, a correlational survey model was used in the study. Correlational survey is a type of research in which complex factors can be better understood, interpreted, and the relationships between them are examined without changing the facts (Mertens, 2015).

2.2. Study Group

The study group of the study consisted of 252 teachers who voluntarily participated in the study and completed the data collection tools fully and accurately. In determining the study group, convenience sampling technique was used. In convenience sampling, researchers reach a sufficient sample group by starting from the most accessible respondents in the study scope in order to collect enough data (Büyüköztürk et al., 2019). Table 1 shows the demographic characteristics of the participants.

Table 1. Demographic information

Variables		f	%
Year of work experience	0 – 10 years	76	30.2
	11 – 20 years	122	48.4
	21 + years	54	21.4
School level	Primary	152	60.3
	Secondary	60	23.8
	High school	40	15.9
Socio-economic condition of the school environment	Low	74	29.4
	Medium	146	59.1
	High	32	11.5
Education science exam score	69 and lower	80	31.7
	between 70 and 79	68	27.0
	between 80 and 100	104	41.3

According to Table 1, 30.2% of teachers have been working for 0-10 years, 48.4% have been working for 11-20 years, and 21.4% have been working for 21 years or more. 60.3% of the teachers work in primary schools, 23.8% work in secondary schools, and 15.9% work in high schools. Regarding the socio-economic background of the schools where the participants work, 29.4% of the schools are in low socio-economic regions, 59.1% are in moderate socio-economic regions, and 11.5% are in high socio-economic regions. As for their scores on the Education Sciences Exam, 31.7% scored 69 or below, 27% scored between 70 and 79, and 41.3% scored between 80 and 100.

2.3. Data collection tools

In the study, data was collected using the “Curriculum Fidelity Scale” developed by Yaşaroğlu and Manav (2015) and the “Curriculum Literacy Scale” developed by Bolat (2017).

2.3.1. Curriculum fidelity scale:

The scale, which was developed by Yaşaroğlu and Manav (2015), consists of 20 items and a single dimension. The factor loadings of the items on the scale range between 0.355

and 0.757. The scale is a 5-point Likert scale, and the scores that can be obtained from the scale can range between 20 and 100. In the original study, the Cronbach's alpha reliability coefficient for the scale was calculated as 0.892. In this study, the Cronbach's alpha reliability coefficient was found as 0.809.

2.3.2. Curriculum literacy scale:

The scale was developed by Bolat (2017) in a 5-point Likert type. It consists of 29 items, and 2 sub-dimensions. The reading sub-dimension of the scale consists of 15 items, while the writing sub-dimension consists of 14 items. The scores that can be obtained from the scale range between 29 and 145. In the original study, the Cronbach's alpha reliability coefficient of the scale was found as 0.940 while it was 0.965 for the current study.

2.4. Data analysis

In data analysis, first normality analyses were performed. For this, skewness and kurtosis values were calculated for the data obtained from both scales. The skewness value for curriculum fidelity scale was -.266 and the kurtosis value was 1.109. The skewness value for curriculum literacy was -1.107 and the kurtosis value was 1.081. Since these values are in the range of -1.5 and +1.5, the data was found to be normally distributed (Tabachnick and Fidell, 2013). The means and standard deviations were calculated to determine the curriculum literacy and curriculum fidelity levels of the teachers. Manova was used to determine if there were significant differences based on the identified demographic characteristics. Correlation was used to determine the relationship between the two variables. Regression analysis was conducted to determine the predictive power, and hierarchical regression analyses were used for the predictive power of sub-dimensions.

3. Results

In this part of the study, the findings obtained according to the research problems are given respectively.

For the sub-problem of "What are the teachers' curriculum literacy and curriculum fidelity levels?", the mean scores obtained from the scales were calculated and the findings are given in Table 2.

Table 2. The mean and standard deviation values of the scores obtained by the participants from the scales

Variables	N	Min.	Max.	Mean	Std.Deviation	Level
Curriculum fidelity	252	56	100	80.46	8.13	High
Curriculum literacy	252	78	145	131.23	14.26	High

The scores that can be obtained from the Curriculum Fidelity Scale range between 20 and 100. When this score range is divided into three levels, the scores between 20 and 46 were determined as low level, between 47 and 75 as moderate level, and as high level between 76 and 100. According to the data in Table 2, the mean score of the teachers obtained from the Curriculum Fidelity Scale was found as 80.46 with a standard deviation of 8.13, which indicated high level of curriculum fidelity. The scores that can be obtained from the Curriculum Literacy Scale range between 29 and 145. Based on this, the scores between 29 and 67 were determined as low level, as moderate level between 68 and 106, and as high level between 107 and 145. According to the data in Table 2, the mean score of teachers obtained from the Curriculum Literacy Scale was found as 131.23 with a standard deviation of 14.26, which indicates a high level of curriculum literacy.

To find the answer to the question of “Do teachers’ curriculum literacy and curriculum fidelity levels differ significantly according to the year of work experience?”, Manova analysis was conducted and the obtained findings are presented in Table 3.

Table 3. Manova analysis result for the year of work experience variable

Dependent Variables	Wilks Lambda	F	p	Hypothesis sd	Error sd	η ²
Curriculum Fidelity	.986	.854	.491	4	496	.007
Curriculum Literacy						

According to the results of Manova analysis in Table 3, there is no significant difference in teachers’ curriculum fidelity and curriculum literacy levels according to year of work experience variable. [F (4,496) =.854, (λ)=.986 p>.05].

To find the answer to the question of “Do teachers’ curriculum literacy and curriculum fidelity levels differ significantly according to school level?”, Manova analysis was conducted, and the obtained findings are presented in Table 4.

Table 4. Manova analysis result for the school level variable

Dependent Variables	Wilks Lambda	F	p	Hypothesis sd	Error sd	η^2
Curriculum Fidelity Curriculum Literacy	.959	2.624	.034*	4	496	.021

*P<.05

According to the results of the MANOVA analysis, there was a significant difference according to the type of school level where teachers work. [F (4,496) =2.624, (λ)=.959 p<.05]. To determine which groups were different from each other, post hoc. analysis was conducted, and the results are given in Table 5.

Table 5. Post – Hoc. Analysis Results

Dependent Variables	I - J	Mean difference	St. Error	p
Curriculum Fidelity	Primary – Secondary	3.476	1.22	.014*
	Primary– High School	3.076	1.42	.095
	Secondary– High School	-.400	1.63	1.000
Curriculum Literacy	Primary – Secondary	4.061	2.16	.184
	Primary – High School	4.395	2.51	.247
	Secondary– High School	.333	2.89	1.000

According to the post hoc analysis results in Table 5, there is a significant difference in teachers' curriculum fidelity in favor of primary school teachers in terms of school type variable.

To find the answer to the question of “Do teachers' curriculum literacy and curriculum fidelity levels differ significantly according to educational sciences exam score?”, Manova analysis was conducted and the obtained findings are presented in Table 6.

Table 6. Manova analysis result for educational sciences exam score

Dependent Variables	Wilks Lambda	F	p	Hypothesis sd	Error sd	η^2
Curriculum Fidelity Curriculum Literacy	.970	1.904	.108	4	496	.015

According to the results of Manova analysis in Table 6, there is no significant difference in teachers' curriculum fidelity and curriculum literacy levels according to their educational sciences exam scores [F(4,496)=1.904, (λ)=.970 p>.05].

To find the answer to the question of “Do teachers' curriculum literacy and curriculum fidelity levels differ significantly according to the socio-economic level of the region where

the school is located?”, Manova analysis was conducted and the obtained findings are presented in Table 7.

Table 7. Manova analysis result for the socio-economic level of the region where the school is located

Dependent Variables	Wilks Lambda	F	p	Hypothesis sd	Error sd	η ²
Curriculum Fidelity	.998	.106	.981	4	496	.001
Curriculum Literacy						

According to the results of Manova analysis in Table 6, there is no significant difference in teachers’ curriculum fidelity and curriculum literacy levels according to the socio-economic level of the region where the school is located [F(4,496)=.106, (λ)=.998 p>.05].

To find the answer to the question of “Is there a significant relationship between teachers’ curriculum literacy and curriculum fidelity levels?”, pearson correlation analysis was performed and the results are given in Table 8.

Table 8. Correlation analysis results between teachers’ curriculum literacy and curriculum fidelity levels

Dependent Variables		Curriculum Literacy	Reading sub-dimension	Writing sub-dimension
	r	.644**	.650**	.574**
Curriculum Fidelity	p	.000	.000	.000
	N	252	252	252

According to the data in Table 8, there is a moderate, positive and significant relationship between teachers’ curriculum fidelity and curriculum literacy levels (r=.644; p<.01). In addition, there is a moderate, positive and significant relationship between teachers’ curriculum fidelity and the sub-dimensions of reading (r=.650; p<.01) and writing (r=.574; p<.01).

To find the answer to the question of “Does teachers’ curriculum literacy level predict their curriculum fidelity?”, regression analysis was performed and the results are given in Table 9.

Table 9. Regression analysis results for teachers’ curriculum literacy and curriculum fidelity

Predicted variable	Predictive variable	β	SHB	t	F	R ²	P
Curriculum Fidelity	Curriculum Literacy	32.245	3.644	8.849	177.153	.415	.000**
Constant		.367	.028	13.310			

B, regression coefficient; SHB, standard error in B; **p< 0.01

As seen in Table 9, curriculum literacy, which is the predictor variable, has a significant contribution to the curriculum fidelity level of the teachers, which is the

predicted variable. It was found that teachers' curriculum literacy contributes by 41.5% to their curriculum fidelity.

Finally, hierarchical regression analysis was conducted to determine whether teachers' curriculum literacy sub-dimensions predict their curriculum fidelity level, and the findings are given in Table 10.

Table 10. Hierarchical regression analysis results

Predicted variable		Predictive variable	β	SHB	t	F	R ²	P
	Model 1	Reading sub-dimension	.792	.059	13.510	182.511	.422	.000**
Curriculum fidelity	Model 2	Reading sub-dimension	.626	.092	6.790	95.572	.434	.000**
		Writing sub-dimension	.169	.073	2.326			.021*

B, regression coefficient; SHB, standard error in B; **p< .01, *p< .05

As seen in Table 10, when all the sub-dimensions of the teachers' curriculum literacy scale are included as predictive variables in the model, the scores obtained from both the reading and writing sub-dimensions have a statistically significant contribution to predicting curriculum fidelity. The R² value of .434 for the two sub-dimensions indicates that this contribution is 43.4 %.

4. Discussion and Conclusions

The aim of this study was to determine the relationship and predictive power between the teachers' curriculum literacy and their curriculum fidelity levels. The study was conducted using convenience sampling technique and a correlational method with 252 participants. The obtained data was analyzed using mean, t-test, ANOVA, correlation, regression, and hierarchical regression analyses.

In the study, both the curriculum literacy and curriculum fidelity levels of teachers were determined to be at high level. This finding suggests that teachers are aware of the basic elements of the curriculum they implement, have knowledge and attitudes about it, and plan their lessons accordingly. Teachers implement the curriculum as it was designed based on their awareness of the curriculum literacy and fidelity. The high curriculum literacy and fidelity of teachers can also be evaluated as their love for the teaching profession, their commitment to it, and their ability to work with dedication. In addition, policy-makers aim to raise the desired human profile through educational programs (Olivia, 2009). In this sense, curriculum literacy and fidelity can be seen as important factors. In the literature, there are studies indicating high level of curriculum literacy (Huang et al., 2017; Süral and Dedebeali, 2018; Aslan and Gürkan, 2019; Çetinkaya and Tabak, 2019; Ustabulut, 2021; Güneş Şinego and Çakmak, 2021) and high

level of curriculum fidelity (Benli, Özdemir, and Arık, 2017; Burul, 2018; Aslan and Erden, 2020; Kabaş, 2020; Polat, Yıldız, and Yıldız, 2022) in the field. Apart from these studies, there are also studies in the literature indicating moderate and low levels of curriculum literacy (Karakuş, 2016; Kahramanoğlu, 2019) and curriculum fidelity (Aykaç and Ulubey, 2012; Han, 2013). In most of the studies in the literature, it can be said that the curriculum literacy and fidelity of the participants are at high level.

According to year of work experience variable, there was no significant difference in teachers' curriculum literacy and curriculum fidelity levels. This is because both novice and experienced teachers examine their programs, follow changes and adjustments, and implement the curriculum according to the officially designed program. In the literature, there are studies related to curriculum literacy (Aslan, 2018; Aydoğan, 2018; Aslan and Gürkan, 2019; Kahramanoğlu, 2019; Gürbüz, 2021) and curriculum fidelity (Arslan et al., 2014; Butakın and Özgen, 2017; Aslan and Erden, 2020) that support the findings of this study. Erdamar (2020) found significant differences in teachers' curriculum literacy based on year of work experience, while Karakuyu and Oğuz (2021) and Sakallıoğlu and Özüdoğru (2022) identified significant differences in teachers' curriculum fidelity in terms of year of work experience.

There was a significant difference in the curriculum fidelity levels of teachers. Accordingly, significant differences were obtained between the teachers working at primary schools and secondary schools and high schools. This difference was in favor of the teachers working at primary schools. Considering that primary school teachers have to follow and implement more than one curriculum and the developmental characteristics of primary school students are taken into account, we can say that they prefer to adhere to the programs rather than adapt them. Karakuyu and Oğuz (2021) and Sakallıoğlu and Özüdoğru (2022) support this finding in their studies conducted with primary and secondary school teachers. However, there was no significant difference in curriculum literacy levels of teachers working at different school types. The fact that teachers develop and update themselves in the university with a progressive and constructivist approach to the curriculum, as well as the fact that the program-related courses do not differ, have been effective in this finding (Güneş Şinego and Çakmak, 2021). Similar results have been obtained in the literature from the studies on curriculum literacy (Aslan, 2018; Aslan and Gürlen, 2019; Erdamar, 2020; Gürbüz, 2021).

There was no significant difference between teachers' curriculum fidelity and curriculum literacy levels according to the socio-economic level of the school environment where they work. Richards and Skolits (2009), Turan-Özpolat and Bay (2015), and Karafil and Oğuz (2019) have stated in their studies that the environment and socio-economic characteristics of the school have an effect on curriculum fidelity of the teachers. The lack of significant difference in this study may be due to the widespread use of information and communication technologies, such as interactive whiteboards,

which enable teachers to actively use teaching technologies in their classrooms and show both awareness and curriculum fidelity. Saracaloğlu (2013) and Koç et al. (2018) have also stated in their studies conducted with teachers that there was no difference between the curriculum literacy of teachers and the location of their schools. Aslan and Erden (2020) have determined in their study, where they classified the environment where the school is located as a province, district, or village, that there was no significant difference in teachers' curriculum fidelity levels, which shows consistency with the finding of this study.

There was no significant difference between the participants' public personnel selection exam educational sciences exam scores and their curriculum fidelity and curriculum literacy. This exam is an academic knowledge-based exam that teacher candidates take before they are appointed. Curriculum fidelity and literacy may mostly relate to teachers' attitudes towards their professional practices. For this reason, there may not be a significant difference between curriculum fidelity and literacy and teachers' educational science exam scores.

Another question sought to be answered in the research is the relationship between curriculum fidelity and curriculum literacy and its sub-dimensions. There was a moderate, positive and statistically significant relationship between teachers' curriculum fidelity and curriculum literacy and sub-dimensions. In addition, the curriculum literacy of the participants was found to predict their curriculum fidelity by 41.5%. Curriculum is a tool that will help solve the economic, social and cultural problems of the society by realizing social demands and government policies (Stabback, 2016). Therefore, teachers need to be literate and committed to the program. Curriculum literacy means that teachers should be equipped well to make sense of the curriculum, to have knowledge on it, to implement and evaluate it (Akyıldız, 2020). Teachers who do not have the required qualifications, they cannot be expected to be sufficiently adhere to the curriculum. In addition, one of the factors affecting curriculum fidelity is reading, knowing and understanding the curriculum (Bay, et al., 2017). There are few studies in the literature examining the relationship between curriculum fidelity and curriculum literacy. Gürbüz (2021) examined the relationship between primary and secondary school teachers' curriculum fidelity and curriculum literacy levels. Similarly, in his master thesis study, Güleş (2022) examined the relationship between primary and secondary school teachers' curriculum fidelity and curriculum literacy levels. In both studies, the existence of a moderate and positive relationship was revealed, which supports the finding of this study. Predictive power was not considered in these studies. Yılmaz and Kahramanoğlu (2021), in their study in which they examined the relationship between teachers' curriculum literacy levels, curriculum orientations and levels of curriculum fidelity, found a moderate level, positive relationship, which supports the finding of this study. They determined the predictive power of curriculum fidelity on curriculum literacy as 21%. Yılmaz and Kahramanoğlu (2021), in their study in which they examined the

relationship between teachers' curriculum literacy levels, curriculum orientations and levels of commitment to the curriculum, found a moderately positive relationship that supports the finding of this study. They determined the predictive power of curriculum fidelity on curriculum literacy as 21%. Since teachers are in the position of implementers of the curriculum, they should take an active role in curriculum in order to ensure the continuity, functionality and consistency of the education programs (Ornstein & Hunkins, 2014) and to provide their commitment with literacy to the curriculum.

As a result, curriculum literacy, which means that teachers have knowledge about the philosophy, foundations and elements of the curriculum they implement, will create awareness about the curriculum. This awareness will enable teachers to implement their teaching programs in a connected way. In the study, teachers' curriculum literacy and curriculum fidelity levels were high. There was a positive and moderate level relationship between these two variables. The contribution of teachers' curriculum literacy to their curriculum fidelity was 41.5%.

References

- Akyıldız, S. (2020). Öğretim programı okuryazarlığı kavramının kavramsal yönden analizi: Bir ölçek geliştirme çalışması. *Elektronik Sosyal Bilimler Dergisi* 19(73): 315-332.
- Arslan, A., Ercan, O. & Tekbıyık, A. (2014). Fizik dersi öğretim programına ilişkin öğretmen görüşlerinin çeşitli değişkenler açısından değerlendirilmesi. *Milli Eğitim Dergisi*, 201, 215-235.
- Aslan, S. & Gürten, E. (2019). Ortaokul öğretmenlerinin program okuryazarlık düzeyleri, *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 20 (1), 171-186. <https://dx.doi.org/10.29299/kefad.2018.20.01.006>
- Aslan, M. & Erden, R.Z.(2020). Ortaokul öğretmenlerinin öğretim programına bağlılıklarının incelenmesi, *YYÜ Eğitim Fakültesi Dergisi (YYU Journal of Education Faculty)*, 17(1):175-199, <https://doi.org/10.33711/yyuefd.691525>
- Aydoğan, A. G. (2018). *Okul yöneticilerinin öğretimsel ve yönetsel liderlik davranışları: polatlı örneği*. Yayımlanmamış Yüksek Lisans Tezi. Ankara: Başkent Üniversitesi Eğitim Bilimleri Enstitüsü.
- Aykaç, N. & Ulubey, Ö. (2012). Öğretmen adaylarının ilköğretim programının uygulanma düzeyine ilişkin görüşleri. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 45(1), 63-82.
- Bay, E., Kahramanoğlu R., Döş B., & Turan Özpölat, E. (2017). Programa bağlılığı etkileyen faktörlerin analizi. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, 0(43), 110-137. <https://doi.org/10.21764/efd.02208>.
- Benli Özdemir, E. & Arık, S. (2017). 2005 yılı fen ve teknoloji dersi ve 2013 yılı fen bilimleri dersi öğretim programlarının öğretmen değerlendirmesi. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 18 (Özel Sayı), 31-44.
- Bolat, Y. (2017). Eğitim programı okuryazarlığı kavramı ve eğitim programı okuryazarlığı ölçeği. *Turkish Studies. International Periodical for the Languages, Literature and History of Turkish or Turkic*. 12(18), 121-138. <http://dx.doi.org/10.7827/TurkishStudies.12103> ISSN: 1308-2140.
- Bond, G. R., Evans, L., Salyers, M. P., Williams, J., & Kim, H. W. (2000). Measurement of fidelity in psychiatric rehabilitation. *Mental Health Services Research*, 2(2), 75–87.
- Burul, C. (2018) *Öğretmenlerin eğitim programı tasarım yaklaşımı tercihlerinin öğretim programına bağlılıklarıyla olan ilişkisinin incelenmesi*, Balıkesir: Yayımlanmamış Yüksek Lisans Tezi, Balıkesir Üniversitesi, Eğitim Bilimleri Enstitüsü.
- Butakın, V. & Özgen, K. (2007). Yeni ilköğretim matematik dersi öğretim programının (4. ve 5. sınıf) uygulamadaki etkililiğinin değerlendirilmesi: Diyarbakır ili örneği. *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi*, 8, 82-94.
- Bümen, N. T., Çakar, E. & Yıldız, D. G. (2014). Türkiye’de öğretim programına bağlılık ve bağlılığı etkileyen etkenler. *Kuram ve Uygulamada Eğitim Bilimleri*, 14(1), 203-228.
- Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö. E., Karadeniz, Ş. & Demirel, F. (2019). *Bilimsel araştırma yöntemleri* (26.Baskı). Ankara: Pegem Akademi.
- Çetinkaya, S., & Tabak, S. (2019). Öğretmen adaylarının eğitim programı okuryazarlık yeterlilikleri. *Ondokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi*, 38(1), 296-309. DOI: <https://doi.org/10.7822/omuefd.535482>
- Dikbayır, A. & Bümen, N. (2016). Dokuzuncu sınıf matematik dersi öğretim programına bağlılığın incelenmesi. *International Journal of Curriculum and Instructional Studies*, 6(11), 17-38.
- Durlak, J.A., & DuPre, E.P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology*, 41, 327-350.

- Dusenbury, L., Brannigan, R., Falco, M., & Hansen, W. B. (2003). A Review of research on fidelity of implementation: implications for drug abuse prevention in school settings. *Health Education Research*, 18(2), 237-256.
- Erdamar, F. S. (2020). *Sınıf öğretmenlerinin program okuryazarlık algıları ve ilkökul yöneticilerinin öğretmenlerin program okuryazarlık becerisine yönelik algılarının ilerlemeci felsefe bağlamında analizi*. Elazığ: Yayınlanmamış Doktora Tezi, Fırat Üniversitesi Eğitim Bilimleri Enstitüsü.
- Gelmez Burakgazi, S.(2019). Programa bağlılık: kara kutuyu aralamak. *Başkent University Journal of Education*, [S.1.], v. 6, n. 2, p. 236-249, ISSN 2148-3272.
- Güleş, E.(2022). *İlkokul ve ortaokul öğretmenlerinin program okuryazarlıkları ve öğretim programına bağlılıklarının incelenmesi*, Nevşehir: Yayınlanmamış Yüksek Lisans Tezi, Nevşehir Hacı Bektaş Veli Üniversitesi, Sosyal Bilimler Enstitüsü.
- Güneş Şinago, S. & Çakmak, M. (2021). Examination of education program literacy levels of teachers. *The Journal of Kesit Academy*, 7 (27), 233-256.
- Gürbüz, Ş.(2021). *Öğretmenlerin öğretim programı okuryazarlık düzeyleri ve öğretim programına bağlılık durumları*, AnkarBolu: Yayınlanmamış Yüksek Lisans Tezi, Eğitim Bilimleri Enstitüsü, Gazi Üniversitesi.
- Han, Ç. (2013). Öğretmenlerin işlevsel paradigmaları ve eğitim reformu. *Trakya Üniversitesi Eğitim Fakültesi Dergisi*, 3(1), 59-79.
- Hill, J. N., Snelgrove-Clarke, E., & Slaughter, S. E. (2014). Assessing the extent and quality of documentation of fidelity to the implementation strategy: A proposed scoring mechanism (Conference presentation). *7th Annual Conference on the Science of Dissemination and Implementation in Health* North Bethesda, MD, USA.
- Huang, H. P., Cheng, Y. Y., & Yang, C. F. (2017). Science teachers' perception on multicultural education literacy and curriculum practices. *EURASIA Journal of Mathematics, Science and Technology Education*, 13(6). 2761-2775.
- Kabaş, İ. (2020) *Sınıf öğretmenlerinin ilk okuma yazma öğretimi öz yeterlik algıları ile ilk okuma yazma öğretim programına bağlılıkları*. Bolu: Yüksek Lisans Tezi, Abant İzzet Baysal Üniversitesi.
- Kahramanoğlu, R.(2019). Öğretmenlerin öğretim programı okuryazarlığına yönelik yeterlik düzeyleri üzerine bir inceleme, *Uluslararası Sosyal Araştırmalar Dergisi*, 12(65): 827 – 840.
- Karafil, B. & Oğuz, A.(2019). İngilizce Öğretmenlerinin Öğretim Programına Bağlılıklarının İncelenmesi, *International Congress on Science and Education 2019 (ICSE2019) Proceedings*, Afyonkarahisar. 21.03.2019.
- Karakuş, F. (2016). Öğretmen adaylarının birleştirilmiş sınıf öğretmeni olmaya yönelik yeterlik algıları. *Turkish Studies*, 11 (19), 491-510.
- Karakuyu, A. & Oğuz, A. (2021). İlkokul ve ortaokul öğretmenlerinin öğretim programlarına bağlılıkları, *İnönü Üniversitesi Eğitim Bilimleri Enstitüsü Dergisi*, 8 (16), 85-103. <https://dx.doi.org/10.29129/inujse.915003>
- Kasapoğlu, K. (2020). Öğretmenlere yönelik algılanan eğitim programı okuryazarlığı ölçeği: Bir ölçek geliştirme ve geçerleme çalışması. *İnönü Üniversitesi Eğitim Fakültesi Dergisi*, 21(2), 963-977. <https://dx.doi.org/10.17679/inuefd.709688>
- Keskin, A. (2020). *Öğretmenlerin öğretim programı okuryazarlık düzeylerine yönelik algılarının belirlenmesi*, Ankara: Yayınlanmamış doktora tezi, Hacettepe Üniversitesi, Eğitim Bilimleri Enstitüsü.
- Mertens, D. M. (2015). *Research and evaluation in education and psychology* (4.Baskı). Los Angeles: Sage Pub.
- Oliva, P. F. (2009). *Developing the Curriculum*, Boston: Ally and Bacon.
- Ornstein, A.C. & Hunkins, F.P. (2014). *Curriculum Foundations, Principles And Issues* (6th edition) (Pearson, London).

- Özdemir, S. M. (2012). Eğitim programı kavramına ilişkin öğretmen adaylarının metaforik algıları. *Kuramsal Eğitimbilim Dergisi*, 5(3), 369-393.
- Özkan, H.H. (2016). An analysis of teachers' opinions about their knowledge of curriculum terms awareness. *Universal Journal Of Educational Research* 4(7): 1601-1613.
- Pence, K., Justice, L., & Wiggins, A. (2008). Preschool teachers' fidelity in implementing a comprehensive language-rich curriculum. *Language Speech, ve Hearing Services in Schools*, 39(3), 329-341.
- Polat, Ç.M., Yıldız, K., & Yıldız, S. (2022). Sınıf öğretmenlerinin öğretmenlik mesleğine bağlılık algıları ile öğretim programına bağlılık algıları arasındaki ilişki. *Bolu Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 22(3), 1122-1158. <https://dx.doi.org/10.17240/aibuefd.2022.-1105108>
- Richards, J., & Skolits, G. (2009). Sustaining instructional change: The impact of professional development on teacher adoption of a new instructional strategy. *Research in the Schools*, 16(2), 41-58
- Sakallıoğlu, G. & Özudoğru, F. (2022). Öğretmenlerin öğretim programına bağlılıklarının incelenmesi. *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (41), 70-107.
- Süral, S., & Dedebali, N. C. (2018). Study of curriculum literacy and information literacy levels of teacher candidates in department of social sciences education. *European Journal of Educational Research*, 7(2), 303-317.
- Stabback, P. (2016). *What makes a quality curriculum? Current and Critical Issues in Curriculum and Learning*. UNESCO International Bureau of Education.
- Tabachnick, B.G. ve Fidell, L.S. (2013). *Using multivariate statistics*. Pearson Publishing.
- Turan-Özpolat, E. & Bay, E. (2015). Program uyumluluğu ve program uyumluluğunu etkileyen faktörlere yönelik literatür taraması. *Route Educational and Social Science Journal*, 2(4), 200-227.
- Ustabulut, M. Y. (2021). Yabancı dil olarak Türkçe öğreten eğitimcilerin eğitim programı okuryazarlık düzeyleri, *Fırat Üniversitesi Sosyal Bilimler Dergisi*, 31, 3(1235-1243).
- Uşun, S. (2016). *Eğitimde program değerlendirme süreçler, yaklaşımlar ve modeller* (2.baskı) (Anı Yayıncılık, Ankara).
- Yaşaroğlu, C. & Manav, F.(2015). Öğretim programına bağlılık ölçeği: geçerlik ve güvenilirlik çalışması. *Uluslararası Eğitim Bilimleri Dergisi*, 2(4), 247-258.
- Yıldırım, İ. (2019). Öğretim programı okuryazarlığı ölçeğinin geliştirilmesi: geçerlik ve güvenilirlik çalışması. *Harran Maarif Dergisi*, 4 (2), 1-28. <https://dx.doi.org/10.22596/2019.0402.1.28>
- Yılmaz, G., & Kahramanoğlu R. (2021). Öğretmenlerin program okuryazarlık düzeyleri, program yönelimleri ve programa bağlılık düzeyleri arasındaki ilişkinin incelenmesi, *Disiplinlerarası Eğitim Araştırmaları Dergisi*, 5(10);178-187.

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