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# ÖĞRETMENLERİN PROGRAM OKURYAZARLIK DÜZEYLERİNİN PROGRAM YÖNELİMİ VE PROGRAMA BAĞLILIK ÜZERİNDEKİ ETKİSİ\*

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## Özet

Eğitim programı, belirli bir öğrenme hedefine ulaşmayı amaçlayan, planlı ve yapılandırılmış bir öğrenme sürecini içeren bir program türüdür. Programların etkililiği bu programın doğrudan uygulayıcısı olan öğretmen tarafından sağlanacaktır. Programların etkinliği, öğretmenlerin program yönelimleri ile programa bağlılıkları ve program sonuçları arasında bir bağlantı kurularak belirlenebilir. Aynı zamanda, programın uygulama aşamasında planın ne olduğunu anlamanın, program okuryazarlığı ile program bağlılığı arasındaki ilişki olarak değerlendirilebileceği bir gerçektir. Bu çalışmanın amacı, öğretmenlerin program okuryazarlık düzeyleri ile program yönelimleri ve programa bağlılıkları arasındaki ilişkiyi analiz etmek ve program okuryazarlık düzeylerinin program yönelimleri üzerindeki etkilerini ve programa olan bağlılıklarına etkilerini incelemektir. Türkiye'de görev yapan 292 öğretmenden veri toplandı. Araştırmaya katılan öğretmenler, Türkiye'nin güneydoğusundaki büyük bir şehirde görev yapmaktadır. Veriler, Covid-19 salgını nedeniyle 2021 ilkbaharında çevrimiçi olarak toplandı. Çalışmanın verileri üç farklı ölçek kullanılarak toplandı. Öğretmenlerin program okuryazarlık düzeyleri, program yönelimleri ve program bağlılıkları arasındaki ilişkiyi belirleyerek literatüre ve ilgili alana katkıda bulunmayı amaçlayan bu çalışmanın sonucunda, program okuryazarlık düzeyinin program yönelimleri üzerinde doğrudan, olumlu ve anlamlı bir etkisi olduğu belirlenmiştir ( $\gamma$ =0.340; p<0.001). Aynı zamanda program yönelimlerinin, programa bağlılıkları üzerinde doğrudan (β=0.44; p<0.001), olumlu ve anlamlı bir etkisi olduğu da desteklenmistir. Program okuryazarlık düzeyinin, programa bağlılık üzerinde doğrudan, olumlu ve istatistiksel olarak anlamlı bir etkisi olduğu belirlenmiştir ( $\gamma$ =0.20; p<0.001). Bu bağlamda program okuryazarlık düzeylerinin program yönelimi ve programa bağlılık üzerinde pozitif, doğrudan ve anlamlı etkileri olduğunu gösteren bulgular elde edilmiştir.

Anahtar Kelimeler: Programa Bağlılık, Program Okuryazarlığı, Program Yönelimi

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# THE EFFECT OF TEACHERS' CURRICULUM LITERACY LEVELS ON THEIR CURRICULUM ORIENTATION AND CURRICULUM FIDELITY

#### Abstract

A curriculum is a type of program that aims to achieve specific learning objectives, encompassing a planned and structured learning process. The effectiveness of these curriculum will be ensured by the direct implementer, which is the teacher. The effectiveness of curriculum can be determined by establishing a link between teachers' curriculum orientations, curriculum fidelity, and program outcomes. At the same time, understanding what the plan is in the implementation phase of the curriculum can be considered as the relationship between curriculum literacy and fidelity to the curriculum. The aim of this study is to analyze the relationship between teachers' curriculum literacy levels and their curriculum orientation and curriculum fidelity and to examine the effects of curriculum literacy levels on curriculum orientations and fidelity to the curriculum. The data were collected from 292 teachers who are teaching in Turkey. The teachers participating in the research work in a large city located in the southeast region of Turkey. Data from teachers were collected online in the spring of 2021 due to the Covid-19 outbreak. The data of the study were collected using three different scales. As a result of this study, aimed at contributing to the literature and the relevant field by determining the relationship between teachers' curriculum literacy levels, curriculum orientations, and curriculum fidelity, it has been established that the program literacy level has a direct, positive, and statistically significant effect on curriculum orientations ( $\gamma$ =0.340; p<0.001). Additionally, the study supports that program orientations have a direct, positive, and significant effect on curriculum fidelity ( $\beta=0.44$ ; p<0.001). Furthermore, it has been determined that the curriculum literacy level has a direct, positive, and statistically significant effect on curriculum fidelity ( $\gamma$ =0.20; p<0.001). In this context, the findings indicate that curriculum literacy levels have positive, direct, and significant effects on curriculum orientation and curriculum fidelity.

Keywords: Curriculum Fidelity, Curriculum Literacy, Curriculum Orientation

## Introduction

Curriculum literacy, which includes the ability to perceive the philosophical approach in the curriculum, can enable teachers to adopt the approaches in the curriculum more quickly, shape their beliefs in the curriculum and develop more accurate perspectives towards the curriculum. Considering the role of teachers' beliefs about education and training processes in the implementation of curriculum, their practical effects should be taken into consideration (Eren, 2020). These beliefs affect teachers' perspectives on curriculum, and this perspective has revealed the concept of curriculum orientations. Curriculum orientations are effective in the decisions of teachers regarding the objectives and content of the curriculum, its practical planning, the strategies to be applied while arranging learning situations, and the assessment and evaluation activities (Cheung and Ng, 2000).

The similarity of the way the curriculum is designed and the way it is implemented is defined as fidelity to the curriculum (Bay et al., 2017). The effectiveness of the programs can be determined by establishing a link between the teachers' curriculum orientations and their fidelity to the curriculum and the program outcomes (Burul, 2018). At the same time, the fact that understanding what the plan is in the implementation phase of the curriculum can be considered as the relationship between curriculum literacy and fidelity to the curriculum. As a matter of fact, it will be difficult to implement something that is unknown. It is expected that the differences between the official program and the program in practice will be minimized, in other words, the designed programs will be fully reflected in the practice by the teachers. Fidelity to the curriculum is a must in order to reveal the factors that affect the results which occur while the curriculum is being implemented (Hill, et al., 2014).

The first step for a plan to succeed is being known and recognition of the plan. Considering the nature of curricula as a plan, and defining the curriculum of curriculum literacy as knowing, recognizing and interpreting the program, it can be thought that there is a relationship between curriculum literacy and fidelity to the curriculum. In addition, based on the role of teachers in the implementation of the curriculum into the real life, the orientation of the curriculum is effective in the decisions taken by the teachers regarding all the activities they will do for the teaching process (Cheung and Ng, 2000).

When the literature is examined, in some studies on curriculum literacy (Altun & Şahin, 2009; Duru & Korkmaz, 2010; Camuzcu & Duruhan, 2011; Kaymakçı, 2015; Şimşek, 2017), researchers have found that teachers are not familiar with the curriculum and, consequently, their levels of curriculum literacy are low. On the other hand, in other studies on curriculum literacy (Aslan, 2018; Kuyubaşıoğlu, 2019; Keskin, 2020; Gülpek, 2020), teachers' levels of curriculum literacy have been found to be high. In his research

with teachers, Güleş (2022) found a statistically significant relationship between program literacy and program commitment. Boncuk (2021) identified a high level of relationship. In addition, in the research conducted by Yılmaz and Kahramanoğlu (2021); it was found that curriculum literacy is related to curriculum orientations and fidelity to the curriculum; they concluded that curriculum orientations have a moderate and positive significant relationship with curriculum fidelity. In the light of these views, it can be thought that there may be a relationship between curriculum literacy, curriculum orientations and fidelity to the curriculum literacy.

The purpose of this research is to analyze the relationship between teachers' curriculum literacy levels and their curriculum orientation and curriculum fidelity. Another purpose of the study is to examine the effects of curriculum literacy levels on curriculum orientations and fidelity to the curriculum. For this purpose, the following hypotheses have been developed.

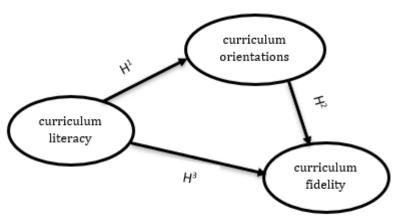
H1: Teachers' curriculum literacy levels have a direct and significant effect on their curriculum orientation.

H2: Curriculum orientations have a direct and significant impact on curriculum fidelity.

H3: Teachers' curriculum literacy levels have a direct and indirect, significant effect on their fidelity to the curriculum.

Figure 1.

Research model



#### Method

#### **Participants and Procedure**

Initially, 328 teachers participated in our research via an online survey. 36 questionnaires with missing data or extreme values were excluded from the evaluation and as a result, data collected from 292 teachers were evaluated. 292 teachers who are teaching in Turkey and of which 155 (53.1%) female and 137 (46.9%) male, with professional seniority ranging from 6 to 28 years (M=17.56, SD=7.02) and the age ranging from 27 to 57 (M=36.21, SD=7.15) participated in our research. 36 (12.3%) of these teachers work at preschool, 83 (28.4%) at primary school, 80 (27.4%) at secondary school, and 93 (31.8%) at high school. The teachers participating in the research work in a large city located in the southeast region of Turkey. A total of 20 thousand teachers work in various branches in this province. Data from teachers were collected online in the spring of 2021 due to the Covid-19 outbreak. The rankings of the data collection tools were chosen randomly to avoid the ranking effect. The nature of voluntary participation and the anonymity of the participants were clarified before the data were collected.

## **Measuring Tools**

The data of the study were collected using three different scales. In order to determine the literacy level of the curriculum, the "Curriculum Literacy Scale" developed by Kahramanoğlu (2019) was used. In order to measure the curriculum orientations of the teachers, the "Curriculum Orientations Inventory"

which was adapted into Turkish by Eren (2010) was used. The "Curriculum Engagement Scale" developed by Burul (2018) was used to determine the level of fidelity of teachers to the curriculum.

The "Curriculum Literacy Scale" developed by Kahramanoğlu (2019) is in 5-point Likert type, consists of 23 items and there is no reverse item in the scale. The scale is rated as 1-not at all competent, 2-not sufficient, 3-sufficient, 4-quite adequate, 5-very competent. The scale consists of three dimensions: the basics of the curriculum (BC) (first 7 items), the elements of the curriculum (EC) (items between 8-15), the structural features of the curriculum (SFC) (items between 16-23). For the 23-item final version of the scale the Cronbach's Alpha coefficient was 0.92; 0.80 for the first sub-dimension consisting of 7 items; 0.84 for the second sub-dimension consisting of 8 items; and 0.80 for the third sub-dimension consisting of 8 items.

"Curriculum Orientations Inventory" developed by Cheung and Wong (2002) and adapted into Turkish by Eren (2010) consists of 5 dimensions and is an 8-point Likert type scale ranging from 1-strongly disagree to 8-strongly agree. In order to determine its reliability, internal consistency analysis was carried out. In the sub-dimensions of the scale, the reliability coefficients related to internal consistency were measured as academic 0.60, cognitive processes 0.68, social-reconstructive 0.75, humanistic 0.78 and technology 0.76 and were found to be sufficient.

The "Curriculum Fidelity Scale" developed by Burul (2018) consists of 7 dimensions and 42 items. The scale has 8 items in the dimension of fitting, 5 items in the dimension of time, 5 items in the dimension of the quality of the application, 7 items in the dimension of participants' reactions, 5 items in the dimension of program differences, 8 items in the dimension of teacher education, and 4 items in the dimension of school climate. The scale was graded as 1-strongly disagree, 2-disagree, 3-undecided, 4-agree, 5-strongly agree. The reliability coefficient of the measurements related to the scale was found to be 0.84 in the dimension of fitting, 0.89 in the dimension of time, 0.81 in the dimension of the quality of the application, 0.89 in the dimension of the participants' reactions, 0.86 in the dimension of program differences, 0.90 in the dimension of teacher education, 0.78 in the dimension of school climate and 0.91 in the whole.

## Analysis of Data

In order to reveal the general characteristics of the collected data descriptive statistics and correlation analysis were studied. Then, a two-stage procedure (Anderson and Gerbing, 1988) was applied to examine the effects of curriculum literacy levels on curriculum orientations and on fidelity to the curriculum. The measurement model was calculated to evaluate whether each of the latent variables is expressed in terms of their own indicators. After the validated measurement model, the structural model was examined using the maximum probability estimation via JASP (version 0.14). The following indices were used to evaluate the overall fitting of the model to the data: SRMR ve RMSEA < 0.08; CFI, RFI, GFI and TLI > 0.90, The cut-off levels were used as suggested by Kline (2011) and Hu and Bentler (1999).

## Results

## **Descriptive Statistics and Correlation**

Descriptive statistics and correlation values are given in Table I. Regarding the limits of severe abnormality (skewness >2; kurtosis >7) suggested by George and Mallery (2019), the assumption of normality was met for all variables (skewness between -0.656 and 0.178 and kurtosis -0.48 to -0.013). In addition, the results showed a statistically significant and positive correlation among all variables (r = 0.30 to 0.41).

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Variables	Μ	SD	Skewness	Kurtosis	1	2	3
1. CL	84.03	12.83	0.178	-0.480	_		
2. CO	204.59	14.32	-0.656	-0.074	0.30*	_	
3. CF	159.91	19.37	0.005	-0.013	0.40*	0.41*	_

\*p<0.01, N:292

## Measurement Model

Following the two-step procedure proposed by Anderson and Gerbing (1998), CFA was used to test the measurement model before examining the structural relationships. The full measurement model included 3 implicit constructs (curriculum literacy, curriculum orientations, curriculum fidelity) and 15 observed variables. It can be told that the first tests fit the data well:  $\chi^2/df=4.705$ , p <0.001; CFI = 0.92; RFI = 0.93; GFI = 0.94; AGFI = 0.90; TLI = 0.92; SRMR = 0.067; RMSEA = 0.072. All indicator variables (indicators) are significantly loaded on their corresponding implicit constructs (range 0.63 to 0.93, p < 0.001), thus indicating that all implicit constructs are well represented by the indicator variables.

# Structural Model

# Figure 2.

Research model

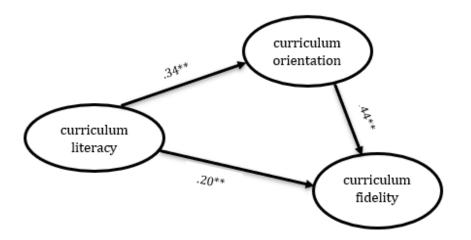


Table	2.
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Dependent Variable	Independent Variable	Total Effect*	Direct Effect	Indirect Effect	S.E.	C.R.	Р
Curriculum orientations	Curriculum literacy	0.34	0.34		0.069	4.71	**
Curriculum fidelity	Curriculum orientations	0.44	0.44		0.098	5.47	**
Curriculum fidelity	Curriculum literacy	0.35	0.20	0.15	0.070	3.24	**

\*Total Effect=Direct Effect + Indirect Effect, \*\*p<0.001

As a result of the analysis carried out, when the results obtained in the structural model are

examined; it has been determined that the literacy level of the curriculum has a direct, positive and significant effect on the curriculum orientations ( $\gamma$ =.34 0; p<0.001). Therefore, H<sup>1</sup> was supported. In line with the data, the hypothesis (H<sup>2</sup>) that curriculum orientations have a direct ( $\beta$ =0.44; p<0.001), positive and significant effect on curriculum fidelity was also supported. In addition, H<sup>3</sup> was supported by determining that the literacy level of the curriculum has a direct, positive and statistically significant effect on curriculum fidelity ( $\gamma$ =0.20; p<0.001).

In addition, it was determined that the literacy level of the curriculum has an indirect, positive and statistically significant effect on the fidelity to the curriculum ( $\gamma$ =0.15; p<0.001). Therefore, it has been determined that the literacy level of the curriculum has both direct and indirect effects on fidelity to the curriculum. In line with these results, it has been determined that teachers' being high-level program literate has direct, indirect and significant effects on their curriculum orientation and fidelity to the curriculum. In line with all these information, the model put forward conceptually was accepted in the context of the data of this study, and the tested hypotheses were supported.

# **Discussion and Comment**

As a result of this study, which aims to make a contribution to the literature and related field by determining the relationship between teachers' curriculum literacy levels, curriculum orientations and their fidelity to the curriculum, findings indicating that curriculum literacy levels have positive, direct and significant effects on curriculum orientation and fidelity to the curriculum have been reached. One of the focal points of the study is to determine the effect of teachers' curriculum literacy levels on curriculum orientations. In this direction, when the analysis results of the study are evaluated, it has been determined that the literacy levels of the curriculum have a positive and positive role on the curriculum orientations. In addition, the formation of teachers' curriculum orientation beliefs also contributes to an increase in their level of fidelity to the curriculum.

The observed positive, moderate relationship between curriculum literacy and fidelity, as highlighted in the research problem statement, aligns with similar findings in the literature. Güleş (2022) replicated these results in a study with teachers, emphasizing the consistency and reliability of the identified relationship. Building upon this, Yılmaz & Kahramanoğlu (2021) and Boncuk (2021) discovered a notably high correlation between curriculum literacy and fidelity, further reinforcing the robustness of this association. Expanding the discussion to encompass related studies, Yılmaz and Kahramanoğlu (2021) emphasized that program literacy scores accounted for 21% of program engagement ratings. Boncuk (2021) also underscored the essential predictive role of both curriculum literacy and commitment. These findings align with the current research, which indicates that instructors exhibit high levels of both curriculum literacy abilities and curriculum dedication. Contrasting levels of curriculum literacy among educators are also acknowledged in the broader literature. While Kana et al. (2018) identified high levels of curriculum literacy among pre-service teachers, Erdem & Emir (2018) reported acceptable levels, and Kahramanolu (2019) found moderate levels among instructors. These diverse findings highlight the nuanced landscape of curriculum literacy within the teaching profession, suggesting that individual and contextual factors may contribute to variations in teachers' proficiency in curriculum-related aspects.

In conclusion, the comprehensive exploration of curriculum literacy, orientation, and fidelity in this study aligns with and extends findings from existing literature. The positive correlation observed emphasizes the importance of recognizing and enhancing teachers' curriculum literacy skills to promote effective curriculum implementation and improve educational outcomes. These insights have practical implications for professional development initiatives, emphasizing the need for targeted interventions to foster curriculum literacy among educators. As the field of education continues to evolve, acknowledging and addressing these interdependencies remains crucial for fostering a responsive and impactful educational system.

The research findings illuminate a significant and nuanced relationship between teachers' curriculum literacy levels, curriculum orientations, and the fidelity with which they implement educational programs. This study contributes not only to the academic literature but also to practical considerations in the field of education. The interconnected nature of curriculum literacy, orientation, and fidelity is explored, offering valuable insights for educators, researchers, and policymakers.

In this context, the following recommendations can be made:

*Curriculum Literacy Education:* Educational institutions and administrators should provide special training programs and resources to enhance teachers' curriculum literacy skills. This will support teachers in better understanding and effectively implementing the curriculum.

Support Programs Focused on Curriculum Orientation: Schools should establish support programs aimed at strengthening teachers' curriculum orientations. These programs can guide and motivate teachers to align more closely with the objectives of the curriculum.

*Reinforcing Beliefs and Attitudes:* Educational institutions should organize activities to strengthen teachers' beliefs and attitudes regarding the curriculum. These activities can increase teachers' levels of commitment to the curriculum.

*Continuous Professional Development:* Teachers should be offered continuous professional development opportunities. This is crucial for keeping up with curriculum innovations and implementing the most up-to-date pedagogical methods.

*Collaboration and Sharing:* Collaboration and experience sharing within schools should be encouraged. Interactions among teachers can facilitate the spread and adoption of best practices in curriculum implementation.

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