

ORIGINAL ARTICLE

Curriculum Literacy Levels of Pre-Service Teachers in the Department of German Language Teaching

Esra Durmaz^{1*} , & Melike Özüdoğru² 

¹ MA, Educational Sciences Department, Gazi University, Türkiye.
ORCID: 0009-0005-2205-416X

² Assoc. Prof. Dr., Educational Sciences Department, Gazi University, Türkiye.
ORCID: 0000-0002-7478-3576

Ethical Statement

Ethical board approval was granted (No: 2023/1522, Number E-77082166-604.01.02-830178).

Funding Information

No funding was received for the study.

Conflict of Interest

No conflict of interest is present in the conduction or the reporting of this study.

ABSTRACT

Educational programs are fundamental components for fostering targeted behaviors and internalizing essential values. Teachers play a crucial role as the practitioners of these programs in the field. In response to the evolving demands and dynamics of the 21st century, teachers are expected to become curriculum literate in order to effectively comprehend, plan, implement, and evaluate educational programs. This study aims to examine the curriculum literacy levels of pre-service teachers enrolled in the Department of German Language Education in terms of the dimensions of objectives, content, the learning-teaching process, and assessment and evaluation. In addition, it investigates whether curriculum literacy levels differ significantly according to gender, academic year, and reasons for choosing the department. The originality of this research lies in the limited number of studies in the literature examining the curriculum literacy levels of pre-service teachers in the Department of German Language Education with respect to these variables. In this study, survey research design was employed. Data were collected from 113 pre-service teachers at Gazi University using the Curriculum Literacy Scale. The findings indicated that participants demonstrated the highest curriculum literacy in the objectives dimension and the lowest in the assessment and evaluation dimension. Curriculum literacy levels did not differ significantly by gender; however, significant differences were found according to academic year and reasons for choosing the department. Finally, the findings were discussed and recommendations were presented.

Keywords: Curriculum Literacy, Curriculum, Instructional Program, Pre-Service Teachers

Received: 09/01/2026

Accepted: 11/06/2026

INTRODUCTION

Curriculum serves as a central framework that guides teachers' instructional decisions and shapes students' learning experiences (Ornstein & Hunkins, 2018; Stake, 1967). It has been conceptualized as the totality of school experiences (Taba & Wilson, 1946), a set of guided and unguided activities that support learners' development (Bobbitt, 2017), and planned learning experiences intended to achieve educational goals, and a framework through which educational values, knowledge, skills, and competencies are translated into classroom practice (Ornstein & Hunkins, 2018). Accordingly, effective curriculum implementation depends not only on the quality of curriculum design but also on teachers' ability to interpret curricular intentions accurately and transform them into meaningful teaching and learning experiences.

In the 21st century, rapid technological advances, globalization, and changing societal expectations have accelerated curriculum reforms and increased the professional competencies expected of teachers (Coşkun, 2022). For curricula to achieve their intended objectives, teachers must understand curriculum structures, plan instruction accordingly, implement appropriate teaching strategies, and evaluate learning outcomes effectively (Tyler, 1949). Within this context, literacy has been recognized as a fundamental competence in contemporary education (Karataş, 2024). Literacy is viewed as a multidimensional capacity that supports comprehension, interpretation, critical evaluation, information acquisition, communication, and reasoning, and enables individuals to construct evidence-based explanations and cause-effect relationships (Mengüloğlu & Sarıkaya, 2024). Accordingly, curriculum literacy has emerged as a key professional competence supporting teachers' effective engagement with curriculum processes (Bolat, 2021).

In Türkiye, the importance of curriculum literacy has become even more evident following the implementation of the Türkiye Yüzyılı Maarif Modeli by the Ministry of National Education in 2024 (Ministry of National Education [MoNE], 2024). The revised curriculum introduces significant changes in curriculum philosophy, competency-based learning, values education, learning outcomes, instructional design, and assessment practices. Rather than requiring teachers to implement curriculum documents mechanically, the new model expects them to understand the philosophical foundations of the curriculum, interpret learning outcomes accurately, establish coherent relationships among curriculum components, and make pedagogical decisions that are responsive to diverse learning needs. Consequently, curriculum literacy has become an indispensable professional competence for both in-service and pre-service teachers, as successful implementation of the new curriculum largely depends on teachers' ability to interpret and enact curriculum documents effectively.

Curriculum literacy is related to educators' capacity to evaluate the applicability and functionality of educational programs (Karagülle, Varkı, & Hekimoğlu, 2019) and encompasses competencies related to instructional planning, material development, method selection, learning activity design, and assessment (Ornstein & Hunkins, 2018). It also enables teachers to evaluate their own instructional practices and identify areas for professional improvement (Shulman, 1987). Curriculum cannot be regarded as an effective educational framework unless teachers understand it thoroughly and demonstrate a comprehensive command of the teaching-learning processes it entails (Tyler, 1949). Since curriculum implementation constitutes one of teachers' core professional responsibilities, effective curriculum enactment requires competence in instructional planning, teaching strategies, and assessment practices (Ornstein & Hunkins, 2018; Zeichner, 2006). Conversely, insufficient curriculum literacy may hinder teachers' ability to evaluate instructional effectiveness and achieve intended learning outcomes (O'Brien, Stewart, & Moje, 1995). Therefore, developing curriculum literacy should be regarded as a fundamental objective of teacher education programs (Karaduman, 2024).

Pre-service teachers' curriculum literacy is shaped during undergraduate education, where they develop foundational professional competencies related to planning, instruction, assessment, and curriculum implementation (Bostock & Boon, 2012). Insufficient preparation in these areas may hinder instructional processes and limit the achievement of educational goals (Yıldırım, 2019). Moreover, perceived inadequacy in planning and implementing curricula may reduce motivation to remain in the profession (Ornstein, Pajak, & Ornstein, 2016). Conversely, higher curriculum literacy is associated with stronger professional readiness among pre-service teachers and may contribute positively to instructional effectiveness (Aygün, Atalay, Kılıç, & Yaşar, 2016). According to Esen-Aygün (2019), pre-service teachers who demonstrate higher levels of curriculum literacy tend to exhibit greater professional readiness for the teaching profession, which contributes positively to the effective conduct of educational and instructional processes. Therefore, developing curriculum literacy of teachers and pre-service teachers is critical for ensuring that curriculum goals are fully understood and implemented effectively (Bolat, 2017).

Although the literature includes numerous studies measuring teachers' curriculum literacy (Erdamar & Akpunar, 2020; Göl & Ergün, 2024; Gündoğan, Şan, & Uyar, 2023; Hamurcu, 2023; Kuloğlu & Tutuş, 2022; Oner Sunkur & Yılmaz, 2025; Yıldırım, 2021), comparatively fewer studies focus on pre-service teachers (Aslan, 2019; Dilek & Taşgın, 2023; Ferah-Özcan, 2024; Sural & Dedebeali, 2018). Findings regarding key variables such as gender and grade level are also inconsistent. While many studies report no significant gender differences (Ayaz, 2023; Barut, 2022; Bayrı, 2022; Demirkol, 2023; Demir, 2022; Dilek, 2020; Göl, 2023; Güleş, 2022; Gürbüz, 2021; Yılmaz, 2021), others identify significant differences in favor of either female or male participants (Erdamar, 2020; Esen-Aygün, 2019; Gömleksiz & Erdem, 2018; Gündoğan, Şan, and Uyar, 2023; Güngör-Demir, 2023; Kahramanoğlu, 2019). Similarly, grade-level findings vary across studies, with some reporting higher curriculum literacy among fourth-year students (Dilek, 2020; Esen-Aygün, 2019; Gömleksiz & Erdem, 2018) and others reporting no significant differences (Kızılaslan Tunçer & Şahin, 2019). In addition, reasons for choosing German Language Education department may be linked to motivation and instructional engagement, yet this variable has received limited attention in relation to curriculum literacy (Özder, Konedralı, & Zeki, 2010). Overall, findings regarding the relationships between gender, grade level, reasons for choosing a department, and curriculum literacy are inconsistent; therefore, examining these variables within the context of German Language Education is particularly important.

Curriculum literacy has been examined across various fields, including physical education (Gülpek & Şahin, 2023), mathematics (Ayaz, 2023), special education (Bayrı, 2022; Göl, 2023; Göl & Ergün, 2024), primary education (Aslan, 2019; Erdamar, 2020; Nasırcı, 2022; Yeşil, 2022), preschool education (Avar-Vayvay, 2020), and English language teaching (Kuloğlu & Tutuş, 2022). However, no study has been identified that specifically investigates curriculum literacy among pre-service teachers in the German Language Education program. This gap is notable, given that language teacher education requires aligning objectives, content sequencing, instructional practices, and assessment in a skill-based and practice-oriented structure. Addressing this gap may support comparisons across subject areas and contribute to an interdisciplinary evaluation of teacher education effectiveness.

Furthermore, the inconsistent findings regarding gender and grade level, together with the limited research examining whether reasons for choosing a department are associated with differences in curriculum literacy, provide further justification for the present study. The implementation of the Türkiye Yüzyılı Maarif Modeli (MONE, 2024), along with curriculum literacy guidebooks and related professional development initiatives, reflects the increasing institutional emphasis placed on teachers' curriculum literacy competencies. Accordingly, the present study is important for examining

the curriculum literacy levels of pre-service teachers who will enter the profession as German language teachers within the context of continuously evolving curricula. Determining pre-service teachers' curriculum literacy levels, as future implementers of educational programs, may also provide insights into their professional development needs. Ensuring that prospective teachers are familiar with educational programs before entering the profession and graduate with well-developed curriculum literacy competencies may contribute to the quality of educational practices. Accordingly, this study aims to determine the curriculum literacy levels of pre-service teachers enrolled in the German Language Education department in terms of objectives, content, the learning-teaching process, and assessment and evaluation. It also examines whether curriculum literacy levels differ significantly according to gender, grade level, and reasons for choosing the department. The study addresses the following research questions:

1. What is the level of curriculum literacy among pre-service teachers in terms of objectives, content, the learning-teaching process, and assessment and evaluation?
2. Do pre-service teachers' curriculum literacy levels differ significantly according to gender, grade level, and reasons for choosing the department?

METHOD

Research Design

A quantitative cross-sectional survey research design was employed. because the study aimed to determine the existing curriculum literacy levels of pre-service teachers and examine whether these levels differed according to selected demographic variables without manipulating any conditions (Büyüköztürk, 2020; Creswell, 2013). In this study, the curriculum literacy levels of pre-service teachers enrolled in the German Language Education program were determined, and whether these levels differed according to gender, grade level, and the reason for choosing the department were examined.

Participants of the Study

The population of the study consisted of pre-service teachers enrolled in the German Language Education departments in Ankara. Because Gazi University hosts one of the longest-established German Language Education programs in Türkiye and provides access to pre-service teachers across all four undergraduate years, it was selected using convenience sampling (Creswell, 2013). Since the study involved the entire accessible population during the data collection period, 113 pre-service teachers studying in the 1st, 2nd, 3rd, and 4th year of the German Language Education program at Gazi University were included. The study was conducted during the fall semester of the 2023-2024 academic year after obtaining approval from the ethics committee (No: 2023/1522, Number E-77082166-604.01.02-830178). Table 1 presents the demographic characteristics of the sample according to the study variables.

Table 1. Distribution of Pre-Service Teachers According to Gender, Grade Level, and Department Preference Variables

Variables	Level	f	%
Gender	Female	77	69.4
	Male	36	30.6
Grade Level	1st Grade	26	23.4
	2nd Grade	31	27.0
	3rd Grade	24	21.6
	4th Grade	32	27.9

Reason for choosing the German Language Education Department	Voluntarily	59	53.2
	Sufficient entrance score	42	36.0
	Other	12	10.8

As shown in Table 1, the study included 77 female and 36 male pre-service teachers. Of these participants, 26 were enrolled in the first year, 31 in the second year, 24 in the third year, and 32 in the fourth year. Fifty-nine pre-service teachers reported choosing the German Language Education department voluntarily, whereas 42 reported selecting the department because their entrance scores were sufficient. Twelve pre-service teachers selected "Other" (e.g., broader employment opportunities, learning a new language, or personal development).

The Context of the German Language Education Program

The study was conducted in the German Language Education Program at Gazi University, an established teacher education program within the Faculty of Education. The program consists of a four-year undergraduate curriculum (240 ECTS credits), preceded by a one-year preparatory language program for students who do not meet the language proficiency requirement (Gazi University, n.d.-a, n.d.-b). Approximately 50 students are admitted to the program annually. The curriculum integrates subject-matter knowledge with professional education courses, including Introduction to Education, Educational Psychology, Teaching Principles and Methods, Instructional Technologies, Measurement and Evaluation, School Experience, and Teaching Practicum (Gazi University, n.d.-b). Through these courses and field-based experiences, prospective teachers encounter curriculum objectives, content, teaching-learning processes, and assessment practices as interconnected components of teacher preparation. This structure makes the German Language Education Program an appropriate context for examining curriculum literacy, as prospective teachers are expected to interpret curriculum requirements and translate them into instructional planning, classroom practices, and assessment decisions before entering the teaching profession.

Data Collection Instruments

Data were collected using two instruments: a demographic information form and the Curriculum Literacy Scale. Details regarding these instruments were presented below.

Demographic Information Form

Demographic data were obtained using a demographic information form developed by the researchers and revised based on feedback from a Turkish language education expert and an associate professor in the Curriculum and Instruction Department. The form included items on participants' gender and grade level. Participants also indicated their reason for choosing the German Language Education Department by selecting one of three options: voluntarily, because their entrance scores were sufficient, or other.

Curriculum Literacy Scale

The Curriculum Literacy Scale used in this study was developed by Akyıldız (2020). Exploratory factor analysis indicated that the scale consists of four factors explaining 60.345% of the total variance. The proportions of variance explained by each factor were 17.997%, 17.090%, 14.643%, and 10.614%, respectively, indicating an adequate level of explained variance. The scale included 36 items across four subdimensions: instructional objectives (6 items), content (9 items), the learning-teaching process (12 items), and assessment and evaluation (9 items). Sample items include the following: for

instructional objectives, "I can formulate objectives related to all three learning domains (cognitive, affective, and psychomotor)"; for program content, "I can select content appropriate for achieving the objectives"; for the learning-teaching process, "I can design learning-teaching processes aligned with the objectives"; and for assessment and evaluation, "I can determine the level of attainment of the objectives." Items were rated on a five-point likert scale (1 = Never to 5 = Always). Akyıldız (2020) reported Cronbach's alpha coefficients of .84 for instructional objectives, .90 for program content, .94 for the learning-teaching process, and .93 for assessment and evaluation. For the overall scale, the Cronbach's alpha coefficient was .97; the Guttman reliability coefficient was .89; and the Spearman correlation coefficient was .89 (Akyıldız, 2020). In the present study, the internal consistency coefficient was .96. Previous studies have also indicated that the scale is a reliable instrument for assessing pre-service teachers' curriculum literacy levels (Demir, Yücesoy, & Serttaş, 2020; Güner & Aslan, 2023).

Data Collection Procedure

Data were collected during the fall semester of the 2023-2024 academic year from 113 pre-service teachers enrolled in the Department of German Language Education at Gazi University. The instruments were administered in printed form through face-to-face classroom administration, with sufficient time provided for completion and with attention to voluntary participation and confidentiality.

Data Analysis

Data were analyzed using descriptive and inferential statistics. All analyses were performed using IBM SPSS Statistics Version 22.0. Descriptive statistics were used to address the first research question by determining pre-service teachers' curriculum literacy levels across the dimensions of objectives, content, the learning-teaching process, and assessment and evaluation (Field, 2009).

To address the second research question and examine the effects of gender, grade level, and reason for choosing the department on curriculum literacy, a multivariate analysis of variance (MANOVA) was conducted because the number of dependent variables exceeded two (Tabachnick & Fidell, 2007). The dependent variables were the four subdimensions of the Curriculum Literacy Scale (instructional objectives, program content, learning-teaching process, and assessment and evaluation). The independent variables were gender, grade level, and reason for choosing the department. Prior to conducting the MANOVA, the assumptions of univariate and multivariate normality, homogeneity of variances, homogeneity of covariance matrices, and the presence of outliers were examined (Tabachnick & Fidell, 2007).

To evaluate univariate normality, skewness and kurtosis values, histograms, and Q-Q plots were examined (Field, 2009). Skewness and kurtosis values were within the range of -1 to $+1$. In addition, Q-Q plots indicated distributions that were approximately normal, with only minor deviations from the diagonal line. Therefore, the distributions were considered normal.

In selecting the multivariate test statistic, Wilks' Lambda was used to evaluate the overall significance of the MANOVA model (Field, 2009) as the multivariate normality according to Mardia's test was violated (Hair et al., 2014). Multivariate outliers and influential cases were examined using Cook's distance, standardized residuals, DFBeta, Mahalanobis distance, and leverage values (Field, 2009). Cook's distance values ranged from .000 to .216 and did not exceed 1. Standardized residuals ranged between -2 and $+2$, and DFBeta values were within -1 to $+1$. Mahalanobis distances ranged from 1.03 to 8.12, and leverage values ranged between .009 and .072. Therefore, no cases were

identified as exerting undue influence on the model.

Homogeneity of variances was examined for each independent variable using Levene's test. For gender, Levene's test results were as follows: objectives, $F(1, 111) = 1.49, p > .05$; content, $F(1, 111) = 1.71, p > .05$; learning-teaching process, $F(1, 111) = 6.49, p < .05$; and assessment and evaluation, $F(1, 111) = 0.21, p > .05$. Thus, homogeneity of variances was violated only for the learning-teaching process dimension. Therefore, a new alpha level was determined as $p = .04$ instead of $.05$ for this dimension.

For grade level, Levene's test results were as follows: objectives, $F(3, 109) = 0.61, p > .05$; content, $F(3, 109) = 1.19, p > .05$; learning-teaching process, $F(3, 109) = 1.37, p > .05$; and assessment and evaluation, $F(3, 109) = 3.21, p < .05$. Thus, homogeneity of variances was violated only for the assessment and evaluation dimension. Therefore, a new alpha level was determined as $p = .04$ instead of $.05$ for this dimension.

For reason for choosing the department, homogeneity of variances was met for all dimensions: objectives, $F(2, 110) = 0.14, p > .05$; content, $F(2, 110) = 0.38, p > .05$; learning-teaching process, $F(2, 110) = 0.90, p > .05$; and assessment and evaluation, $F(2, 110) = 0.09, p > .05$. Accordingly, the standard alpha level ($p = .05$) was retained (Field, 2009).

For the univariate ANOVA tests, a more conservative significance threshold was applied to dimensions in which the assumption of homogeneity of variances was violated. A Bonferroni correction was used by dividing the overall alpha level ($p = .05$) by the number of dependent variables ($p = .05/4 = .0125$). For the assessment and evaluation dimension, where the adjusted significance level was set at $p = .04$, the Bonferroni-corrected alpha was recalculated as $p = .01$ ($p = .04/4$).

RESULTS

To address the first research question and determine pre-service teachers' curriculum literacy levels across the dimensions of objectives, content, the learning-teaching process, and assessment and evaluation, descriptive statistics were computed (Field, 2009). The mean scores and standard deviation values for each dimension were presented in Table 2.

Table 2. Levels of Pre-Service Teachers' Curriculum Literacy Across Scale Dimensions

Dimensions	M	SD
Objectives	3.91	.67
Content	3.90	.73
Learning-teaching process	3.85	.75
Assessment and evaluation	3.62	.89

As shown in Table 2, pre-service teachers demonstrated a moderate level of curriculum literacy across the dimensions of the Curriculum Literacy Scale. The highest mean score was observed in the objectives dimension ($M = 3.91, SD = 0.67$), whereas the lowest mean score was found in the assessment and evaluation dimension ($M = 3.62, SD = 0.89$). Before conducting MANOVA to address the second research question and examine the effects of gender, grade level, and reason for choosing the department on curriculum literacy, descriptive statistics for these independent variables were calculated and are presented in Table 3.

Table 3. Means and Standard Deviations by Gender, Grade Level, and Reason for Choosing the Department across Curriculum Literacy Dimensions

		Objectives		Content		Learning-teaching process		Assessment and evaluation	
		M	SD	M	SD	M	SD	M	SD
Gender	Female	3.97	.59	3.95	.67	3.94	.63	3.71	.84
	Male	3.78	.79	3.79	.83	3.67	.94	3.41	.95
Grade Level	1 st .Grade	3.70	.74	3.70	.76	3.74	.67	3.41	.68
	2 nd .Grade	4.00	.59	3.64	.75	3.55	.86	3.29	1.05
	3 rd .Grade	3.89	.55	3.98	.58	3.97	.58	3.89	.63
	4 th .Grade	4.02	.73	4.25	.64	4.15	.70	3.89	.90
Reason for choosing the department	Voluntarily	4.01	.60	4.01	.66	3.99	.65	3.74	.86
	Sufficient entrance score	3.69	.70	3.69	.74	3.55	.81	3.37	.91
	Other	4.19	.69	4.05	.76	4.20	.63	3.87	.82

The descriptive statistics in Table 3 indicated that female pre-service teachers had higher mean scores than male pre-service teachers across all dimensions, fourth-year pre-service teachers generally scored higher than first-year pre-service teachers, and pre-service teachers who chose the department voluntarily had higher mean scores than those who selected it because their entrance scores were sufficient.

A multivariate analysis of variance (MANOVA) was conducted to examine whether curriculum literacy differed significantly by gender, grade level, and reason for choosing the department (Tabachnick & Fidell, 2007). First, the effect of gender on curriculum literacy was examined. The results are presented in Table 4.

Table 4. Multivariate and univariate analysis results for curriculum literacy dimensions by gender

ANOVA* F (1,111)					
Variable	MANOVA* F (4,108)	Objectives	Content	Learning-teaching process	Assessment and evaluation
Group	1.23	2.15	1.08	3.16	2.90

*p > .05

Before interpreting the multivariate results, the assumption of homogeneity of covariance matrices was assessed. Box's M = 19.52, $F(10, 22841.64) = 1.86$, $p < .05$, indicating that the covariance matrices were not equal across groups (Hair et al., 2014). Based on the multivariate test results, Wilks' Lambda was not statistically significant (Wilks' Lambda = .96). As shown in Table 4, gender did not have a statistically significant multivariate effect on curriculum literacy, $F(4, 108) = 1.23$, $p > .05$. In other words, the curriculum literacy levels of female and male pre-service teachers did not differ significantly across the dimensions of objectives, content, the learning-teaching process, and assessment and evaluation. Next, the effect of grade level on curriculum literacy was examined. The results are presented in Table 5.

Table 5. Multivariate and univariate analysis results for curriculum literacy dimensions by grade level

ANOVA F (3,109)					
Variable	MANOVA* F (12, 280,74)	Objectives	Content**	Learning-teaching process**	Assessment and evaluation
Group	2.93	1.35	5.08	4.08	3.84

*p < .05, **p < .0125

Before interpreting the multivariate results, the homogeneity of covariance matrices was assessed. Box's $M = 47.06$, $F(30, 29345.74) = 1.46$, $p < .05$, indicating that the covariance matrices were not equal across groups (Hair et al., 2014). The multivariate test results showed that Wilks' Lambda was statistically significant (Wilks' Lambda = .73). As shown in Table 5, grade level had a statistically significant multivariate effect on dependent variables, $F(12, 280.74) = 2.93$, $p < .001$, indicating that curriculum literacy differed significantly across grade levels.

The multivariate eta squared effect size was $\eta^2 = .10$, which indicates that 10% of the variance in the combined dependent variables was associated with grade level. According to Cohen (1988), eta squared values are interpreted as negligible ($\eta^2 < .01$), small ($.01 \leq \eta^2 < .06$), moderate ($.06 \leq \eta^2 < .14$), and large ($\eta^2 \geq .14$). Therefore, $\eta^2 = .10$ indicates a moderate effect size.

Following the multivariate results, univariate ANOVA results were examined. The univariate results indicated that grade level had a statistically significant effect on the content dimension, $F(3, 109) = 5.08$, $p < .0125$, and the learning-teaching process dimension, $F(3, 109) = 4.08$, $p < .0125$. Overall, fourth-year pre-service teachers scored significantly higher than first- and second-year pre-service teachers in these dimensions. Finally, the effect of the reason for choosing the department on curriculum literacy was examined. The results are presented in Table 6.

Before interpreting the multivariate results, the assumption of homogeneity of covariance matrices was assessed. Box's $M = 30.99$, $F(20, 3803.86) = 1.40$, $p > .05$, indicating that the covariance matrices were equal across groups (Hair et al., 2014). The multivariate test results showed that Wilks' Lambda was statistically significant (Wilks' Lambda = .86). As shown in Table 6, the reason for choosing the German Language Education program had a statistically significant multivariate effect on curriculum literacy, $F(8, 214) = 2.18$, $p < .05$.

Table 6. Multivariate and univariate analysis results for curriculum literacy dimensions by reason for choosing the department

Variable	MANOVA* F (8, 214)	ANOVA F (2, 110)			
		Objectives	Content	Learning-teaching process**	Assessment and evaluation
Group	2.18	4.29	2.71	6.40	2.75

* $p < .05$, ** $p < .0125$

The effect size was $\eta^2 = .075$, indicating that 7.5% of the variance in the combined dependent variables was associated with the reason for choosing the department. According to Cohen (1988), this represents a moderate effect. Following the multivariate results, univariate ANOVA results were interpreted using the Bonferroni-adjusted significance level ($p = .05/4 = .0125$). The univariate results indicated that the reason for choosing the department had a statistically significant effect only on the learning-teaching process dimension, $F(2, 110) = 6.40$, $p < .0125$. Specifically, pre-service teachers who chose the program voluntarily scored significantly higher than those who chose it because their entrance scores were sufficient in the learning-teaching process dimension.

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

The present study examined the curriculum literacy levels of pre-service teachers enrolled in the German Language Education program across the dimensions of objectives, content, the learning-teaching process, and assessment and evaluation. Overall, the findings indicated that pre-service teachers demonstrated the highest curriculum literacy in the objectives dimension and the lowest in the assessment and evaluation dimension, while exhibiting moderate levels in the content and learning-teaching process dimensions. This pattern is consistent with the growing emphasis in teacher

education on planning and structuring instruction through curriculum objectives, while also reflecting the continuing challenges associated with assessment literacy in contemporary educational contexts. Several studies have similarly examined curriculum literacy across these core dimensions among teachers and teacher candidates (Demir, Yücesoy, & Serttaş, 2020; Tanaş & Tuncer, 2024; Ustabulut, 2021; Yalçın, Bahar, & Yalçın, 2023; Yeşil, 2022). In line with the findings of the present study, Yeşil (2022) reported that pre-service teachers demonstrate higher competence in objectives and content, while showing lower competence in the learning-teaching process and assessment and evaluation dimensions. This recurring pattern may show that teacher education experiences tend to prioritize the conceptual and planning-based aspects of curricula (such as identifying instructional goals and selecting content), whereas assessment competence often requires more intensive practice, repeated feedback cycles, and opportunities to implement diverse evaluation approaches in authentic instructional settings.

The difference between the objectives and assessment and evaluation dimensions is particularly noteworthy. Curriculum implementation requires coherence among intended learning outcomes, instructional activities, and assessment practices; therefore, being able to formulate objectives does not by itself ensure the ability to determine appropriate evidence of learning. The relatively stronger performance in objectives observed in the present study may indicate that pre-service teachers are more familiar with the explicit and planning-oriented aspects of curriculum documents, whereas assessment requires additional decisions concerning the selection of appropriate evidence, alignment between objectives and assessment methods, interpretation of results, and the use of assessment information to inform subsequent instruction. This finding is consistent with research indicating that teachers and pre-service teachers may experience difficulties in implementing assessment and evaluation approaches, particularly when translating assessment principles into classroom practice (Kazu & Aslan, 2013; Akçadağ, 2010; Evin Gencil & Özbaşı, 2013; Karaman & Şahin, 2014; Özenç & Çakır, 2015). Baş and Beyhan (2016) similarly emphasized the importance of teachers' perceived competence in measurement and evaluation, supporting the need to strengthen assessment-related preparation within initial teacher education.

In addition, international perspectives help position the present findings within a broader educational context. The relatively low score in assessment and evaluation may reflect the complexity of integrating curriculum objectives with appropriate assessment evidence and instructional decisions. International research conceptualizes teacher assessment literacy as a practice-oriented competence that involves not only knowledge of assessment procedures but also the interpretation and use of assessment information to guide teaching (Brookhart, 2011; DeLuca et al., 2016). From this perspective, the present findings may indicate that pre-service teachers need more opportunities to connect assessment with instructional purposes during their teacher education, particularly because assessment competence requires stronger alignment between assessment education, teacher preparation, and professional practice (DeLuca & Bellara, 2013). This interpretation is also consistent with Brookhart's (2024) emphasis on assessment knowledge and skills as essential for sound instructional decision-making. Thus, the lower performance in assessment and evaluation may represent not simply limited knowledge of assessment techniques, but a need for greater practice in translating curriculum expectations into appropriate evidence of student learning. The comparatively low assessment and evaluation score observed in this study may therefore be understood not simply as a weakness in knowledge of assessment procedures, but as an indication that the integration of curriculum objectives, instructional decisions, assessment evidence, and feedback may require more sustained practice during teacher education. Assessment literacy requires both conceptual knowledge (e.g., validity, reliability, fairness, alignment) and applied skills (e.g., rubric construction, performance assessment, formative feedback). This is particularly relevant in German Language Education, where learning outcomes

frequently involve speaking, writing, interaction, and communicative competence, all of which require performance-oriented assessment, explicit criteria, and context-sensitive professional judgment. Thus, the present finding extends the curriculum literacy literature by suggesting that assessment may represent a particularly demanding point at which curriculum interpretation must be translated into observable evidence of student learning.

This issue is also particularly relevant in the context of the recently implemented Türkiye Yüzyılı Maarif Modeli (MONE, 2024). The model places emphasis on the coherent development of learning outcomes and on the alignment of teaching and assessment processes within a broader framework of learner development. In such a context, teachers' ability to interpret curriculum expectations and translate them into appropriate assessment practices becomes increasingly important. Therefore, the relatively lower assessment and evaluation literacy identified in the present study may point to an area requiring particular attention in the preparation of future teachers who will implement continuously evolving curriculum frameworks. Rather than suggesting that pre-service teachers are generally insufficiently prepared, the finding highlights the need to strengthen the connection between what curricula intend students to learn and how teachers determine whether those intentions have been realized.

Another major finding of the study was that pre-service teachers' curriculum literacy levels did not differ significantly by gender. This result aligns with the findings of many studies reporting no statistically significant differences in curriculum literacy between female and male participants (Ayaz, 2023; Barut, 2022; Bayrı, 2022; Demir, 2022; Göl, 2023; Gülpek & Şahin, 2023; Gürbüz, 2021; Mansuroğlu, 2019; Nasırcı, 2022; Yılmaz, 2021). However, the literature also includes studies reporting significant gender differences (Erdamar, 2020; Esen-Aygün, 2019; Gömleksiz & Erdem, 2018; Güngör-Demir, 2023; Kahramanoğlu, 2019). Taken together, these mixed results suggest that gender effects may depend on contextual factors such as institutional practices, disciplinary characteristics, and the structure of teacher education curricula. In the present study, the lack of gender-based differences may be associated with the fact that male and female pre-service teachers are exposed to the same courses, similar instructional experiences, and comparable professional expectations. As noted by Göl (2023), similar training pathways in faculties of education may contribute to comparable competence development across genders. Gürbüz (2021) similarly suggests that shared philosophical frameworks, coeducational practices, and common subject-matter requirements may reduce the likelihood of gender-based differences in curriculum literacy.

From a conceptual standpoint, curriculum literacy involves cognitive and pedagogical competencies related to interpreting curriculum documents, planning instruction, implementing curriculum components, and making professional decisions during teaching practice (Bolat, 2017). Such competencies may be shaped more strongly by variables such as learning approaches, professional attitudes, individual motivation, and engagement with coursework rather than gender itself. Moreover, standardized structures in teacher education programs may also contribute to similar outcomes across genders, especially in subject areas such as German Language Education where linguistic structures, cultural content, and methodological demands are taught through the same curriculum framework. Therefore, the finding of no gender difference may indicate that curriculum literacy functions primarily as a professional competence grounded in training experiences and individual learning processes rather than demographic characteristics.

The findings demonstrated significant differences in curriculum literacy according to grade level, particularly in the content dimension. Fourth-year pre-service teachers scored significantly higher than first and second-year pre-service teachers, suggesting that curriculum literacy may develop progressively throughout undergraduate education as candidates gain greater exposure to curriculum-focused coursework and applied learning experiences. This result is

consistent with studies reporting higher curriculum literacy among students in advanced years (Dilek, 2020; Esen-Aygün, 2019; Gömleksiz & Erdem, 2018). For instance, Gömleksiz and Erdem (2018) found that fourth-year pre-service teachers performed more strongly than third-year students in dimensions associated with curriculum-related reading and writing. Dilek (2020) similarly reported that curriculum literacy differed across grade levels, with improvements as grade level increased. Karaduman (2024) also concluded that fourth-year students demonstrated higher curriculum literacy compared to second-year students, and attributed this difference to the increasing number of curriculum-related courses and experiences gained across the undergraduate program. These findings collectively suggest that curriculum literacy is not a fixed competence acquired at a single point in teacher education, but rather a developmental outcome shaped by cumulative coursework, practicum engagement, and reflective professional learning.

The structure of the German Language Education program provides a plausible context for interpreting this finding. In the German Language Education undergraduate program, curriculum-related courses such as "Curriculum Development in Education," "Teaching Principles and Methods," and "Instructional Material Design" are offered beginning in the second year. Such courses may provide essential theoretical foundations for understanding curriculum structures and instructional planning. In the third and fourth years, additional courses such as "Measurement and Evaluation in Education," "Special Teaching Methods," and "Teaching Practice," as well as field-specific courses including "Exam Preparation and Evaluation in German Language Teaching," "Principles and Methods in Teaching German as a Second Foreign Language," and "Micro-Teaching Applications in German Language Teaching," are intended to support the development of curriculum implementation competence (Gazi University. (n.d.-b). Accordingly, fourth-year students may demonstrate higher curriculum literacy because they have had more opportunities to connect curricular content with professional practice through micro-teaching, lesson planning, instructional design, and reflective teaching experiences. Beyond coursework, students in advanced years may also have more exposure to authentic language teaching contexts, such as observing classroom practices, planning skill-based instruction, and adapting materials to learner needs, all of which strengthen curriculum-related competence.

In addition to formal coursework, teaching practice experiences may be especially influential in shaping curriculum literacy at later stages of teacher education. Hascher (2012) emphasizes that practicum experiences can support professional learning through observation of expert practice, interaction with practitioners, gradual assumption of teaching responsibilities, and reflection on teaching experiences. Such experiences may provide opportunities for pre-service teachers to move from understanding curriculum concepts to applying them in authentic instructional contexts. The finding that differences were particularly evident in the content dimension may therefore suggest that repeated exposure to curriculum documents and opportunities to select, organize, and adapt content become more pronounced as candidates approach graduation. At the same time, the fact that assessment and evaluation remained the weakest dimension suggests that increased exposure to curriculum-related coursework does not necessarily ensure equal development across all dimensions. This distinction is important: curriculum literacy may increase with educational experience while still developing unevenly across specific competencies.

Another important finding of the study was that curriculum literacy differed significantly in the learning-teaching process dimension according to pre-service teachers' reasons for choosing the German Language Education department. This result suggests that motivational and career-related factors may influence how candidates engage with instructional processes and professional competence development. The literature includes several studies examining the reasons why pre-service teachers choose the teaching profession and how these reasons relate to professional attitudes and learning

outcomes (Karacan, 2022; Nalçacı & Sökmen, 2016; Özder, Konedraı, & Zeki, 2010). As emphasized by Akbaba (2006), choosing a profession willingly may strengthen engagement and persistence in teaching-related learning processes. Similarly, Boz and Boz (2008) argue that individuals who choose teaching voluntarily tend to be more motivated to deliver instruction effectively, create productive learning environments, and adopt innovative instructional practices over time. In this regard, the higher learning-teaching process scores among candidates who choose the department voluntarily may reflect stronger professional commitment, greater openness to pedagogical development, and higher motivation to participate actively in professional learning experiences.

German Language Education represents a distinctive context in teacher education because it involves not only linguistic competence but also cultural knowledge and communicative pedagogical approaches. Therefore, candidates' reasons for choosing the department may vary considerably, ranging from a strong desire to become a teacher to interests in language learning, personal development, or international academic connections. These differences may shape candidates' engagement with the learning-teaching process. For example, candidates with strong teaching ideals may show greater interest in pedagogical activities such as lesson planning, classroom interaction, and instructional adaptation, whereas candidates who primarily aim to improve language skills may engage less deeply with teacher-centered professional development tasks. Also, this finding can be further situated within international theories of teacher motivation. The FIT-Choice framework proposes that individuals' motivations for entering teaching are shaped by intrinsic and personally valued reasons as well as by extrinsic influences and perceived benefits or costs associated with the profession (Watt & Richardson, 2007). Self-Determination Theory similarly distinguishes autonomous forms of motivation from more controlled forms and proposes that autonomous motivation is associated with deeper engagement, persistence, and self-regulated learning (Deci & Ryan, 2000; Ryan & Deci, 2020). Research on teacher motivation has also emphasized the role of motivation in pre-service teachers' engagement with professional learning and development (Han & Yin, 2016). From this perspective, the present finding may suggest that candidates who choose the department voluntarily may approach pedagogical learning with stronger personal commitment or greater autonomous motivation. Such motivation could be associated with greater engagement in lesson planning, instructional adaptation, classroom interaction, and other learning-teaching activities. Importantly, however, the present design does not allow a causal conclusion that motivation produces higher curriculum literacy. Rather, the finding suggests an association that warrants further investigation.

In conclusion, the findings of the study indicate that pre-service teachers in the German Language Education program demonstrate relatively stronger competence in curriculum objectives and weaker competence in assessment and evaluation. Curriculum literacy did not differ significantly by gender; however, significant differences were observed according to grade level and reasons for choosing the department. These results emphasize that curriculum literacy should be supported through both theoretical and applied components within teacher education programs. In particular, assessment literacy appears to require more structured and practice-based training, especially in language education contexts where performance-based evaluation and criteria-based assessment are central to instructional effectiveness.

Taken together, the findings provide a more differentiated picture of curriculum literacy among pre-service German language teachers. The results do not simply indicate whether participants possess "high" or "low" curriculum literacy; rather, they show that different dimensions of this competence develop differently and may be associated with different factors. Objectives represented the strongest dimension, whereas assessment and evaluation represented the weakest. Grade-level differences were particularly evident in content, suggesting a possible developmental contribution of

cumulative teacher education experiences, while gender was not associated with significant differences. Finally, reasons for choosing the department were associated with differences in the learning-teaching process, pointing to the possible relevance of motivational orientation. This multidimensional pattern is important for interpreting curriculum literacy as a professional competence rather than as a single, uniform skill.

Despite its contributions, the study has limitations. The study was conducted with 113 pre-service teachers from a single German Language Education program at Gazi University in Ankara. Therefore, the findings should be interpreted within this specific institutional and geographical context, and their generalizability to pre-service German language teachers in other universities or regions of Türkiye is limited. Also, the study relied on self-reported curriculum literacy data. Future research could complement self-report measures with interviews, classroom observations, curriculum document analyses, lesson plans, assessment artifacts, and performance-based tasks to examine how candidates actually interpret and enact curriculum. Future studies could also investigate additional explanatory variables, including teaching self-efficacy, motivation to teach, practicum quality, academic achievement, and digital literacy.

Based on the finding that pre-service teachers demonstrated the lowest curriculum literacy in assessment and evaluation, it is recommended that measurement and evaluation course content be enriched and supported with practical applications. For instance, pre-service teachers may be required to design rubrics for speaking and writing tasks, develop performance-based assessment tools, analyze student work, and practice providing formative feedback. Such applied tasks may strengthen their ability to use contemporary assessment approaches alongside traditional methods and support curriculum alignment in instructional decision-making. Given that fourth-year students demonstrated higher curriculum literacy levels, practice-based courses such as micro-teaching and teaching practice may be introduced in earlier years of the program. Implementing micro-teaching activities across multiple year levels and providing early internship or observation opportunities may allow pre-service teachers to connect curriculum knowledge with teaching practice earlier in their professional development. Finally, considering the significant difference in the learning-teaching process dimension based on reasons for choosing the department, comprehensive and structured orientation activities at the beginning of university education are recommended. These activities may aim to strengthen professional awareness, clarify career expectations, and support motivation by introducing candidates to curriculum requirements, teaching competencies, and the practical demands of the profession.

REFERENCES

- Akbaba, S. (2006). Eğitimde motivasyon. *Atatürk University Kazım Karabekir Faculty of Education Journal*, 13, 343-361.
- Akçadağ, T. (2010). The training needs of teachers concerning methods and techniques and assessment and evaluation in the primary school curriculum. *Ahmet Yesevi University Journal of Bilig*, 53(1), 29-50.
- Akyıldız, S. (2020). Eğitim programı okuryazarlığı kavramının kavramsal yönden analizi: Bir ölçek geliştirme çalışması. *Electronic Journal of Social Sciences*, 19(73), 315-332. <https://doi.org/10.17755/esosder.554205>
- Aslan, S. (2019). An analysis of prospective teachers' curriculum literacy levels in terms of reading and writing. *Universal Journal of Educational Research*, 7(4), 973-979. <https://doi.org/10.13189/ujer.2019.070408>
- Avar-Vayvay, N. (2020). *Okul öncesi öğretmenlerinin benimsedikleri eğitim felsefeleri ile eğitim programı okuryazarlık düzeyleri arasındaki ilişkinin incelenmesi* (Unpublished master's thesis). Kahramanmaraş Sütçü İmam University, Kahramanmaraş, Türkiye.
- Ayaz, S. (2023). *Matematik öğretmenlerinin program okuryazarlıkları ile öğretim programı uyarılama örüntüleri arasındaki ilişki* (Unpublished master's thesis). Kütahya Dumlupınar University, Kütahya, Türkiye.
- Aygün, Ş. S., Atalay, N., Kılıç, Z., & Yaşar, S. (2016). Öğretmen Adaylarına Yönelik 21. Yüzyıl Becerileri Yeterlilik Algıları Ölçeğinin Geliştirilmesi: Geçerlik Ve Güvenirlilik Çalışması. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, 40(40), 160-175. <https://izlik.org/JA44DX53WT>
- Barut, C. (2022). *Öğretmenlerin program okuryazarlık düzeyleri ve eleştirel düşünme eğilimleri arasındaki ilişkinin incelenmesi* (Unpublished master's thesis). Aydın Adnan Menderes University, Aydın, Türkiye.
- Baş, G., & Beyhan, Ö. (2016). Öğretmenlerin eğitimde ölçme ve değerlendirmeye yönelik özyeterlilik algılarının bazı değişkenler açısından incelenmesi. *Journal of Measurement and Evaluation in Education and Psychology*, 7(1), 18-32. <https://doi.org/10.21031/epod.34199>
- Bayrı, S. (2022). *Özel eğitim kurumlarında görev alan öğretmenlerin program okuryazarlık durumları ve özel eğitim özel alan yeterliliklerinin incelenmesi* (Unpublished master's thesis). Atatürk University, Erzurum, Türkiye.
- Bobbitt, J. F. (2017). *Eğitim Programı* (M. E. Rüzgar, Trans.). Pegem Academy Publishing.
- Bolat, Y. (2017). The concept of curriculum literacy and the curriculum literacy scale. *Turkish Studies*, 12(18), 121-138. <https://doi.org/10.7827/TurkishStudies.12103>
- Bolat, Y. (2021). *Curriculum literacy*. Pegem Academy.
- Bostock, L., & Boon, H. (2012). Pre-service teachers' literacy self-efficacy and literacy competence. *Australian and International Journal of Rural Education*, 22(1), 19-37. [https://doi.org/10.47381/aijre.v22i1.603Boz, Y., & Boz, N. \(2008\). Kimya ve matematik öğretmen adaylarının öğretmen olma nedenleri. *Kastamonu Education Journal*, 16\(1\), 137-144. <https://izlik.org/JA72RC36TG>](https://doi.org/10.47381/aijre.v22i1.603Boz, Y., & Boz, N. (2008). Kimya ve matematik öğretmen adaylarının öğretmen olma nedenleri. Kastamonu Education Journal, 16(1), 137-144. https://izlik.org/JA72RC36TG)
- Brookhart, S. M. (2011). Educational assessment knowledge and skills for teachers. *Educational Measurement: Issues and Practice*, 30(1), 3-12. <https://doi.org/10.1111/j.1745-3992.2010.00195.x>
- Brookhart, S. M. (2024). Educational assessment knowledge and skills for teachers revisited. *Education Sciences*, 14(7), 751. <https://doi.org/10.3390/educsci14070751>
- Büyükoztürk, Ş., Kılıç Çakmak, E., Akgün, Ö., Karadeniz, Ş., & Demirel, F. (2020). *Eğitimde bilimsel araştırma yöntemleri*. Pegem Academy.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Coşkun, F. (2022). Öğretmenlik mesleği ve 21. yüzyıl becerileri. *Alanyazın*, 3(1), 31-38. <https://izlik.org/JA46MX33RE>
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). SAGE.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268. https://doi.org/10.1207/S15327965PLI1104_01
- DeLuca, C., & Bellara, A. (2013). The current state of assessment education: Aligning policy, standards, and teacher education curriculum. *Journal of Teacher Education*, 64(4), 356-372. <https://doi.org/10.1177/0022487113488144>
- DeLuca, C., LaPointe-McEwan, D., & Luhanga, U. (2016). Teacher assessment literacy: A review of international standards and measures. *Educational Assessment, Evaluation and Accountability*, 28(3), 251-272. <https://doi.org/10.1007/s11092-015-9233-6>

- Demir, M. (2022). Ortaokul öğretmenlerinin bilişsel esneklik ve program okuryazarlık düzeyleri arasındaki ilişki (Unpublished master's thesis). Fırat University, Elazığ, Türkiye.
- Demir, B., Yücesoy, Y., & Serttaş, Z. (2020). Öğretmen adaylarının program okuryazarlık seviyeleri: KKTC örneği. *Uluslararası Türk Kültür Coğrafyasında Sosyal Bilimler Dergisi*, 5(1), 28-37. <https://izlik.org/JA77XTI79YY>
- Demirkol, S. (2023). Öğretmenlerin program okuryazarlıkları ile mesleki gelişime yönelik tutumları arasındaki ilişki (Unpublished master's thesis). Sakarya University, Sakarya, Türkiye.
- Dilek, Ç. (2020). Öğretmen adaylarının program okuryazarlık düzeyleri ile pedagojik bilgi ve beceri düzeylerinin incelenmesi (Unpublished master's thesis). Atatürk University, Erzurum, Türkiye.
- Dilek, Ç., & Taşgın, A. (2023). Examining the curriculum literacy, pedagogical knowledge, and skill levels of preservice teachers. *International Journal of Curriculum and Instructional Studies*, 13(1), 47-66. <https://doi.org/10.31704/ijocis.2023.003>
- Erdamar, F. S. (2020). Sınıf öğretmenlerinin program okuryazarlık algıları ve ilkökul yöneticilerinin öğretmenlerin program okuryazarlık becerisine yönelik algılarının ilerlemeci felsefe bağlamında analizi (Unpublished doctoral dissertation). Fırat University, Elazığ, Türkiye.
- Erdamar, F. S., & Akpunar, B. (2020). Analysis of classroom teachers' perceptions of curriculum literacy. *Journal of Education and Training Studies*, 8(3), 21-31. <https://doi.org/10.11114/jets.v8i3.4619>
- Erdem, S. (2023). Öğretmenlere yönelik program okuryazarlığı hizmet içi eğitim programının geliştirilmesi: Tasarım, uygulama ve değerlendirme (Unpublished doctoral dissertation). Yıldız Technical University, İstanbul, Türkiye.
- Esen-Aygün, H. (2019). Predicting prospective teachers' readiness for the teaching profession in terms of curriculum literacy. *International Journal of Curriculum and Instructional Studies*, 9(2), 203-220. <https://doi.org/10.31704/ijocis.2019.009>
- Evin-Gencil, İ., & Özbaşı, D. (2013). Investigating prospective teachers' perceived levels of competence toward measurement and evaluation. *Elementary Education Online*, 12(1), 190-201.
- Ferah Özcan, A. (2024). The relationship between pre-service teachers' motivation to teach and curriculum literacy. *Sakarya University Journal of Education*, 14(2), 324-341. <https://doi.org/10.19126/suje.1387708>
- Field, A. P. (2009). *Discovering statistics using SPSS* (3rd ed.). SAGE.
- Gazi University. (n.d.-a). About the Department of Foreign Language Education. Gazi Faculty of Education. <https://gef-yabancidiller.gazi.edu.tr/view/page/150778>
- Gazi University. (n.d.-b). German Language Education undergraduate curriculum. Gazi Faculty of Education. <https://gef-yabancidiller-alandili.gazi.edu.tr/view/page/236453/ders-programlari>
- Göl, H. (2023). Özel eğitim öğretmenlerinin program okuryazarlık, öz yeterlik inanç ve programa bağlılık düzeyleri arasındaki ilişkinin incelenmesi (Unpublished master's thesis). Mardin Artuklu University, Mardin, Türkiye.
- Göl, H., & Ergün, N. (2025). Özel eğitim öğretmenlerinin program okuryazarlık durumları. *Ankara University Journal of Special Education*, 26(1), 101-116. <https://doi.org/10.21565/ozelegitimdergisi.1397760>
- Gömlüksiz, M. N., & Erdem, Ş. (2018). Eğitim fakültesi ve PFE programına kayıtlı öğretmen adaylarının eğitim programı okuryazarlığına ilişkin görüşleri. *Journal of Academic Social Science Studies*, 73, 509-529. <https://doi.org/10.9761/JASST7964>
- Güleş, E. (2022). İlkokul ve ortaokul öğretmenlerinin program okuryazarlıkları ve öğretim programına bağlılıklarının incelenmesi (Unpublished master's thesis). Nevşehir Hacı Bektaş Veli University, Nevşehir, Türkiye.
- Gülpek, U., & Şahin, Ş. K. (2023). Beden eğitimi ve spor öğretmenlerinde eğitim programı okuryazarlık ve öğretim yeterlik düzeyleri. *Uluslararası İnsan ve Sanat Araştırmaları Dergisi*, 8, 11-26. <https://doi.org/10.5281/zenodo.8256806>
- Gündoğan, G., Şan, İ., & Uyar, A. (2023). Curriculum literacy perception levels of teachers. *International Journal of Educational Research Review*, 8(3), 422-434. <https://doi.org/10.24331/ijere.1270528>
- Güner, T., & Aslan, S. (2023). An analysis of the relationship between pre-service teachers' curriculum literacy and their preparedness to teach. *Anadolu University Journal of Education Faculty*, 7(1), 111-126. <https://doi.org/10.34056/aujef.1177806>
- Güngör-Demir, S. (2023). Öğretmen adaylarının program okuryazarlık düzeyleri ile eğitim programına ilişkin metaforik algılarının incelenmesi (Unpublished master's thesis). Pamukkale University, Denizli, Türkiye.
- Gürbüz, Ş. (2021). Öğretmenlerin öğretim programı okuryazarlık düzeyleri ve öğretim programına bağlılık durumları (Unpublished master's thesis). Gazi University, Ankara, Türkiye.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis* (7th ed.). Pearson.

- Han, J., & Yin, H. (2016). Teacher motivation: Definition, research development and implications for teachers. *Cogent Education*, 3(1), 1217819. <https://doi.org/10.1080/2331186X.2016.1217819>
- Hascher, T. (2012). Lernfeld Praktikum-Evidenzbasierte Entwicklungen in der Lehrer/innenbildung. *Zeitschrift für Bildungsforschung*, 2(2), 109-129. <https://doi.org/10.1007/s35834-012-0032-6>
- Kahramanoğlu, R. (2019). Öğretmenlerin öğretim programı okuryazarlığına yönelik yeterlik düzeyleri üzerine bir inceleme. *The Journal of International Social Research*, 12(65), 827-840.
- Karacan, V. E. (2022). *Okul öncesi öğretmen adaylarının mesleki tutumlarının bazı değişkenlere göre incelenmesi* (Unpublished master's thesis). Maltepe University, İstanbul, Türkiye.
- Karaduman, B. (2024). Öğretim programının uygulayıcıları ne kadar program okuryazarı? *Educational Academic Research*, 54, 132-143. <https://doi.org/10.33418/education.1416962>
- Karagülle, S., Varkı, E., & Hekimoğlu, E. (2019). An investigation of the concept of curriculum literacy in the context of applicability and functionality of educational programs. *Journal of Educational Reflections*, 3(2), 85-97.
- Karaman, P., & Şahin, Ç. (2014). Öğretmen adaylarının ölçme değerlendirme okuryazarlıklarının belirlenmesi. *Ahi Evran University Journal of Education Faculty*, 15(2), 175-189. <https://izlik.org/JA33TS66HA>
- Karataş, İ. H. (2024). Türkiye yüzüylü maarif modeli hakkında. *Alanyazın*, 5(1), 6-11. <https://izlik.org/JA93MS86XG>
- Kazu, H., & Aslan, S. (2013). Evaluation of studies conducted on the assessment and evaluation dimension of the 2004 primary school curriculum. *Elementary Education Online*, 12(1), 87-108. Retrieved from <https://ilkogretim-online.org/index.php/pub/article/view/5259>
- Kızılaslan Tunçer, B., & Şahin, Ç. (2019). Öğretmen adaylarının eğitim programına ilişkin bilgi düzeylerinin incelenmesi. *Erzincan University Journal of Education Faculty*, 21(2), 247-260. <https://doi.org/10.17556/erziefd.511367>
- Kuloğlu, A., & Tutuş, F. (2022). Curriculum literacy levels of English teachers: A mixed-method study. *International Journal of Progressive Education*, 18(4), 191-208. <https://doi.org/10.29329/ijpe.2022.459.14>
- Mansuroğlu, C. (2019). *Öğretmenlerin eğitim programı okuryazarlıkları ile yansıtıcı düşünme eğilimlerinin incelenmesi* (Unpublished master's thesis). Kahramanmaraş Sütçü İmam University, Kahramanmaraş, Türkiye.
- Mengüloğlu, G., & Sarıkaya, B. (2024). Eğitimde okuryazarlık becerileri. *Asya Studies*, 8(30), 41-66. <https://doi.org/10.31455/asya.1574908>
- Nalçacı, A., & Sökmen, Y. (2016). Öğretmen adaylarının mesleği tercih nedenleri ve öğretmenlik mesleğine yönelik tutumları arasındaki ilişki. *Ahi Evran University Journal of Education Faculty*, 17(3), 717-727. <https://izlik.org/JA66BW49KPNasirci>
- Nasirci, H. (2022). *Sınıf öğretmenlerinin eğitim programı okuryazarlığı yeterliklerinin incelenmesi* (Unpublished doctoral dissertation). Çukurova University, Adana, Türkiye.
- O'Brien, D. G., Stewart, R. A., & Moje, E. B. (1995). Why content literacy is difficult to infuse into secondary schools: Complexities of curriculum, pedagogy, and school culture. *Reading Research Quarterly*, 30(3), 442-463. <https://doi.org/10.2307/747625>
- Oner Sunkur, M., & Yılmaz, F. (2025). Prediction of elementary school teachers' curriculum fidelity by demographic variables and curriculum literacy. *Athens Journal of Education*, 12(2) 321-340. <https://doi.org/10.30958/aje.12-2-8>
- Ornstein, A. C., & Hunkins, F. P. (2018). *Curriculum: Foundations, principles, and issues* (7th ed.). Pearson Education.
- Ornstein, A. C., Pajak, E. F., & Ornstein, S. B. (2016). *Eğitim programlarında güncel sorunlar* (T. B. Nilay, Trans.). Pegem Academy.
- Özder, H., Konedralı, G., & Zeki, C. P. (2010). Öğretmen adaylarının öğretmenlik mesleğine yönelik tutumlarının çeşitli değişkenler açısından incelenmesi. *Kuram ve Uygulamada Eğitim Yönetimi*, 16(2), 253-275. <https://izlik.org/JA97GF25ZBÖzenç>
- Özenç, M., & Çakır, M. (2015). Sınıf öğretmenlerinin alternatif ölçme ve değerlendirme yeterliklerinin belirlenmesi. *Elementary Education Online*, 14(3), 914-933. <https://doi.org/10.17051/ie.2015.22900>
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1-23. <https://doi.org/10.17763/haer.57.1.j463w79r56455411>
- Stake, R. E. (1967). Toward a technology for the evaluation of educational programs. In R. W. Tyler, R. M. Gagne, & M. Scriven (Eds.), *Perspectives of curriculum evaluation* (Vol. 1, pp. 1-12). Rand McNally.

- Sural, S., & Dedebali, N. C. (2018). A 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. <https://doi.org/10.12973/eu-jer.7.2.303>
- Taba, H., & Wilson, H. E. (1946). Intergroup education through the school curriculum. *Annals of the American Academy of Political and Social Science*, 244(1), 19-25.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*. Pearson Education.
- Tanaş, R., & Tuncer, M. (2024). Öğretmenlerin program okuryazarlık, öğrenme öğretme süreci yeterlikleri, başarı hedefleri ve programa bağlılıkları arasındaki ilişkiler. *Cumhuriyet International Journal of Education*, 13(2), 426-437. <https://doi.org/10.30703/cije.1326230>
- Ministry of National Education. (2024). *Türkiye Yüzyılı Maarif Modeli* [Türkiye Century Education Model]. <https://tymm.meb.gov.tr>
- Tyler, R. W. (1949). *Basic principles of curriculum and instruction*. University of Chicago Press.
- Ustabulut, M. Y. (2021). Yabancı dil olarak Türkçe öğreten eğitimcilerin eğitim programı okuryazarlık düzeyleri. *Firat University Journal of Social Sciences*, 31(3), 1235-1243. <https://doi.org/10.18069/firatsbed.941957>
- Watt, H. M. G., & Richardson, P. W. (2007). Motivational factors influencing teaching as a career choice: Development and validation of the FIT-Choice Scale. *The Journal of Experimental Education*, 75(3), 167-202. <https://doi.org/10.3200/JEXE.75.3.167-202>
- Yalçın, S., Bahar, H. H., & Yalçın, S. (2023). Öğretmenlerin öğretim programı okuryazarlığı ile öğretmen öz yeterliliklerinin incelenmesi. *Euroasia Journal of Social Sciences and Humanities*, 10(32), 61-74. <https://doi.org/10.5281/zenodo.8078831>
- Yeşil, M. (2022). *Sınıf öğretmeni adaylarının program okuryazarlıklarının incelenmesi*. (Unpublished master's thesis). Erciyes Üniversitesi, Kayseri, Türkiye.
- Yıldırım, İ. (2019). Öğretim programı okuryazarlığı ölçeğinin geliştirilmesi: Geçerlik ve güvenirlik çalışması. *Harran Maarif Dergisi*, 4(2), 1-28. <https://doi.org/10.22596/2019.0402.1.28>
- Yıldırım, V. Y. (2021). The impact of teacher idealism on curriculum literacy: The mediating role of belief in education. *International Journal of Curriculum and Instruction*, 13(2), 1548-1563. <https://ijci.net/index.php/IJCI/article/view/606>
- Yılmaz, G. (2021). *Öğretmenlerin program okuryazarlık düzeyleri, program yönelimleri ve programa bağlılık düzeyleri arasındaki ilişkinin incelenmesi* (Unpublished master's thesis). Gaziantep University, Gaziantep, Türkiye.
- Zeichner, K. (2006). Konzepte von lehrerexpertise und lehrerausbildung in den vereinigten staaten. *Zeitschrift für Pädagogik* 51, 97-113. https://www.pedocs.de/volltexte/2013/7372/pdf/Zeichner_Konzepte_von_Lehrerexpertise.pdf