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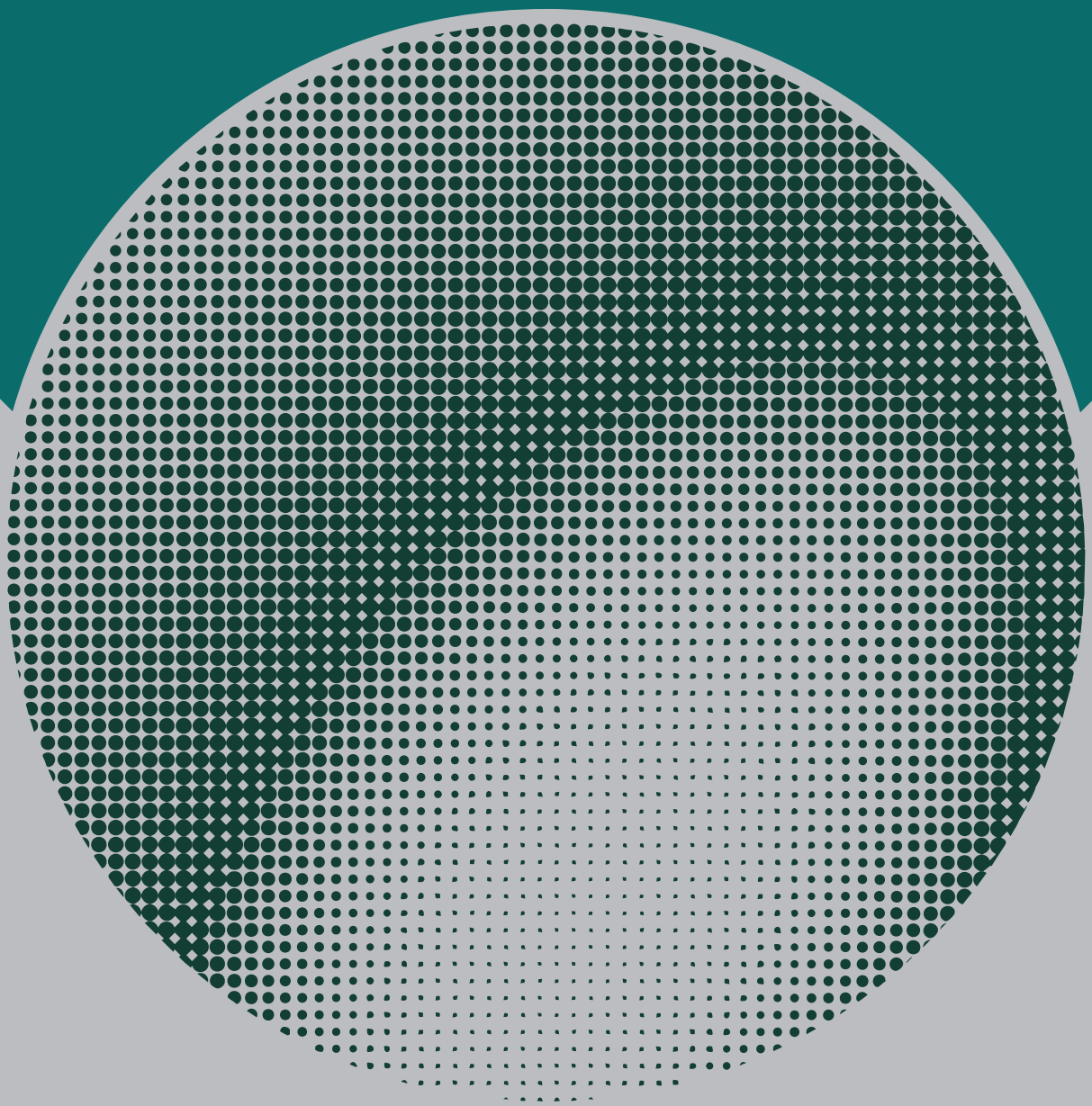

2024

Volume 11
Issue 2

e-ISSN: 2148-3868

International Journal of Contemporary Educational Research
Volume 11 | Issue 2 | Year 2024

About the Journal

Journal Name	International Journal of Contemporary Educational Research
Abbreviation Name of the Journal	IJCER
e-ISSN	2148-3868
Publication Frequency	Four issues in year (March, June, September & December)
Dergi Web Sitesi	www.ijcer.net
Start Publishing	31.01.2014
Chief Editor	Mehmet Nuri Gömleksiz
Publisher	Muhammed Zincirli
Country of Publication	Türkiye
Publication Type	Open access
Publication Content	International Journal of Contemporary Educational Research contains original scientific publications. All published papers, except editorial manuscripts, are subject to a double blind peer review process.
Audience	The target audience is members of the profession, teachers, school administrators, experts, researchers, master's and doctoral students as well as students related to this field with all fields of educational sciences. It aims to contribute to the spread of continuous professional development and research culture.
Publication Language	English

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Peer-Review	Double anonymized - Double Blind
Plagiarism Checks	iThenticate & Turnitin

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Education Full Text (H. W. Wilson) Database Covarage List
European Reference Index for the Humanities and Social Sciences (ERIH PLUS)

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International Journal of Contemporary Educational Research

Volume 11, Number 2, June 2024, Page 143 -157 Article Type: Research Article

Concurrent Validity of the Central Examination of Secondary Education Institutions: Canonical Correlation Analysis

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Abstract
The aim of the study is to reveal the concurrent validity of the Central Examination of Secondary Education Institutions (OKMS). For this purpose, the relationship between the OKMS subtest raw scores of the students who took the exam and the 8th-grade year-end achievement scores of the courses within the scope of the exam was analyzed by canonical correlation analysis. Grade 8 achievement scores were taken as the independent (predictor) variable, and OKMS subtest scores were taken as the dependent (criterion) variable. The study was conducted on 3029 8th-grade students who took the OKMS. Only one canonical correlation was found to be significant between the two sets of variables. 8th-grade achievement scores were highly positively correlated with OKMS subtest scores. While 8th-grade foreign language and science achievement scores had a high predictive power for OKMS subtest raw scores, it was found that the predictive power of the achievement scores of the religious culture course in explaining the OKMS subtest raw scores was low. The set of 8th-grade scores explained 48.6% of the total variance in the variable set of OKMS subtest raw scores. The OKMS subtest variable set explains 60.1% of the total variance in the set of 8th-grade scores.

Keywords: Canonical correlation, Secondary education institutions central exam, Concurrent validity, Validity

Citation
Keleş, T. (2024). Concurrent validity of the central examination of secondary education ınstitutions: canonical correlation analysis. *International Journal of Contemporary Educational Research, 11*(2), 143-157. https://doi.org/10.52380/ijcer.2024.11.2.494

Received	06.07.2023
Accepted	29.02.2024
Publication	15.06.2024
Peer-Review	Double anonymized - Double Blind
Plagiarism Checks	Yes - iThenticate
Conflicts of Interest	The author(s) has no conflict of interest to declare.
Complaints	ijceroffice@gmail.com
Grant Support	The author(s) acknowledge that they received no external funding in support of this research.
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Introduction

It is feasible to instill behaviors in students that align with age expectations and to ensure the sustainability of these behaviors through education (Anıl, 2009). The outcomes derived from international comprehensive assessments such as PISA and TIMS have prompted reforms within our education system to equip our students for global competitiveness (MoNE, 2019a). Following international assessments, numerous countries, including Turkey, have introduced new forms of national assessments under the auspices of PISA (Stacey et al., 2015). In Turkey, this paradigm shift is evident in the High School Transition System, manifested through curriculum updates (MoNE, 2019a). Central exams are significant in facilitating students' transition to secondary education within our educational framework (MoNE, 2022a). Over the past 25 years, Turkey has implemented five distinct high school transition systems. These include the Transition to High Schools Examination (LGS) at the 8th-grade level from 1999 to 2003, the Secondary Education Institutions Examination (OKS) at the 8th-grade level from 2004 to 2006, the Level Determination Examination (SBS) spanning the 6th, 7th, and 8th grades from 2007 to 2013, the Transition from Basic Education to Secondary Education (TEOG) at the 8th-grade level from 2014 to 2017, and the Secondary Education Institutions Central Examination (OKMS) at the 8th-grade level since 2018 (Güler et al., 2019; MoNE, 2018a). OKS was discontinued due to students experiencing excessive stress and the limited scope of the exam; SBS was terminated as annual exams at a young age were found to impact students' psychology negatively; and TEOG was abolished as it required all students to undergo a rigorous exam schedule every semester of the eighth grade. Despite being designed as an achievement test, it was primarily used for selection purposes.

The Central Examination for Secondary Education Institutions is applied to select students for science high schools, Anatolian high schools, social sciences high schools, Anatolian imam hatip high schools, and secondary education institutions with special programs and projects. Central placement is made according to the quotas of the schools and the students' central exam score superiority (MoNE, 2018b; MoNE, 2021). Eighth-grade students are eligible to participate in the exam, which is structured around the learning objectives outlined in the 8th-grade curriculum. OKMS comprises two sessions, one held in the morning and the other in the afternoon. The morning session consists of a 50-question verbal section, while the afternoon session includes a 40-question numerical section. These sections are designed to assess students' abilities in reading comprehension, interpretation, inference, problem-solving, analysis, critical thinking, scientific processes, and skills, all aligned with the learning outcomes of the 8th-grade curriculum (MoNE, 2018c). Since 2018, the Central Exam has been designed following the PISA approach, with questions prepared to mirror PISA-style problems (Altun et al., 2022; MoNE, 2019a; Öztürk & Masal, 2020). The integration of PISA-type problems into the OKMS aims to familiarize both teachers and students with such problems and guide them in acquiring the necessary skills to solve them. An assessment of whether the changes and updates implemented in the high school transition system, aimed at placing students in secondary education institutions, meet the intended objectives is warranted. The efficacy of the measurement tool employed in central exams hinges on its reliability and validity (Turgut & Baykul, 2012). Investigating the effectiveness of these updates is a crucial matter.

The limited availability of quotas in secondary education institutions, coupled with high demand, necessitates the administration of selection exams. In the academic year 2017-2018, out of 1,192,799 Grade 8 graduates, 971,657 (81.46%) took the exam for 127,420 student quotas (MoNE, 2018c). In 2022, 1,236,308 students graduated from secondary school, with 1,031,799 participating in the central exam, resulting in 188,875 students being centrally placed in secondary education institutions. The placement rate in institutions admitting students through examination stands at approximately 19% (MoNE, 2022b). Given this context, the quality of centralized exam results, which gauge the academic proficiency of students seeking admission to institutions admitting through examination, holds paramount importance for decision-making concerning students (MoNE, 2022a).

Selection exams are designed to identify students possessing desired characteristics from among those with varying traits (Turgut & Baykul, 2014). Accurately pinpointing students through centralized exams is perceived as fulfilling the objectives of secondary education institutions and uncovering students' potential (Sınacı, 2019). Reliability and validity are critical attributes of any measurement tool. Reliability pertains to the extent to which measurements are devoid of errors. Meanwhile, validity concerns the degree to which a measurement tool effectively measures what it is intended to assess (Tan, 2015). Validity encompasses four categories: content validity, criterion-based validity, construct validity, and face validity (Büyüköztürk et al., 2010). Criterion-based validity is assessed through concurrent and predictive validity. Concurrent validity refers to the correlation between test scores and criterion scores, indicating the level of similarity or congruence between the test under evaluation and the accepted criterion (Büyüköztürk et al., 2010; Tan, 2015). Predictive validity gauges the extent

to which students' test scores forecast their future performance. In essence, predictive validity involves predicting future achievements. Since OKMS subtests align with the learning outcomes of the 8th-grade curriculum, it is hypothesized that OKMS subtest scores correlate with 8th-grade achievement scores, thereby serving as evidence of criterion-related validity for OKMS.

In the literature, in the validity studies of the central exams in our country, content validity (Çağlar & Kılıç, 2019; Gültekin & Arhan, 2015; Kelecioğlu et al., 2010), construct validity (Baş, 2013), predictive validity (Baş, 2013; Kan, 2005; Karakaya, 2007; Karakaya & Kutlu, 2002; Karakoç & Köse, 2018; Köroğlu & Doğan, 2022; Kelecioğlu, 2003; Köprülü, 2020; Önen, 2003; Öntaş et al., 2020; Özdemir & Gelbal, 2016; Parlak & Tatlıdil, 2013; Verim, 2006; Yakar, 2011), and concurrent validity (Baş, 2013; Deniz & Kelecioğlu, 2005; Doğan & Sevindik, 2011; Güzeller, 2005; Köroğlu & Doğan, 2022; Sevindik, 2009; Sınacı, 2019). Güzeller (2005) examined the relationship between the seventh grade academic achievement grade point averages and the subtest raw scores of the OKÖSYS with canonical correlation analysis. As a result of the study, it was concluded that there was a significant positive correlation between the seventh grade written exam scores and the 2002 OKÖSYS and that it adequately explained the variability in this exam. Doğan and Sevindik (2011) conducted a study to examine the concurrent validity between 6th grade Turkish, mathematics, social studies, science, and English academic achievement scores and the subtest scores of the placement test (SBS). The results showed that the concurrent validity of the exam was insufficient. Köroğlu and Doğan (2022) investigated the concurrent and predictive validity of the 2019 Central Examination for Secondary Education Institutions (OKMS) scores. The results showed that the predictive validity of OKMS subtest scores was high for 8th-grade Turkish and History and 9th grade History and Science academic achievement scores.

Purpose and Importance of the Research

There are a limited number of studies examining the concurrent validity of OKMS subtest scores. The questions asked in the central exam of secondary education institutions are achievement-oriented in the 8th-grade curriculum (MoNE, 2018a). It is considered necessary and important to reveal the relationship between students' 8th-grade year-end academic achievement scores and OKMS subtest scores. Student selection and placement exams from middle school to high school have an important place in the education system. It is of great importance that the central placements to be made according to the exam results are accurate and in line with the students' wishes (MoNE, 2022a). Examining the features of this critical examination and addressing any deficiencies will enhance the accuracy and effectiveness of decisions based on these exams. Therefore, there is a need to examine the relevance and validity of the OKMS. This study differs from other studies in terms of including all subtest scores of OKMS and the number of samples. It is thought that the results to be obtained from this study are important in terms of examining the quality of OKMS and determining the accuracy and appropriateness of the decisions made according to these exams.

The purpose of this study is to examine the relationship between the 2018 Central Examination for Secondary Education Institutions subtest raw scores and 8th-grade year-end academic achievement scores with canonical correlation analysis and to determine the level of concurrent validity of the exam. Since this study aims to reveal the relationship between academic achievement scores and OKMS subtest raw scores, it is a concurrent validity study. In line with this purpose, an answer to the question "How is the concurrent validity of the 2018 OKMS subtest scores?" was sought.

Method

Research Model

In this study, which examines the relationship between two sets of variables, each containing six variables, with multivariate canonical correlation analysis, a relational survey design was used. Concurrent validity was tried to be determined by applying canonical correlation analysis, one of the multivariate statistical techniques, to the variables obtained. Canonical correlation analysis aims to explain the relationship between two sets of variables (Albayrak, 2016; Karagöz; 2021; Tabachnick & Fidell, 2013). Canonical correlation analysis is a very important technique that determines the extent to which variation in one set of variables can be explained by variation in another set of variables (Sherry & Henson, 2005). It identifies canonical variables that reveal the highest correlation between two data sets and important underlying factors (Abdi et al., 2017).

Working Group

The research sample comprised 3029 8th-grade students who took part in the OKMS in 2018, selected through criterion sampling from 24 secondary schools across 17 districts within the boundaries of Bursa province (three

schools each from Osmangazi, Nilüfer, and Yıldırım central districts, two from İnegöl, and one from each of the remaining 13 districts). Necessary permissions and approvals were obtained prior to conducting the study. Criterion sampling involves examining situations that meet a predetermined set of criteria (Patton, 2014; Yıldırım & Şimşek, 2016). For canonical correlation analysis, the sample size should ideally be 20 times the total number of variables in the dataset (Karagöz, 2021). Given that there are 12 variables in total in this study, a minimum of 240 participants is deemed adequate for the sample. The distribution of students across schools is presented in Table 1.

Table 1. Distribution of the students participating in the study according to schools

Schools	N	%		N	%
Secondary School 1	49	1.62	Secondary School 13	139	4.59
Secondary School 2	75	2.48	Secondary School 14	125	4.13
Secondary School 3	164	5.41	Secondary School 15	45	1.49
Secondary School 4	161	5.32	Secondary School 16	119	3.93
Secondary School 5	139	4.59	Secondary School 17	165	5.45
Secondary School 6	55	1.82	Secondary School 18	167	5.51
Secondary School 7	261	8.62	Secondary School 19	105	3.47
Secondary School 8	41	1.35	Secondary School 20	88	2.91
Secondary School 9	141	4.66	Secondary School 21	73	2.41
Secondary School 10	85	2.81	Secondary School 22	203	6.70
Secondary School 11	156	5.15	Secondary School 23	78	2.58
Secondary School 12	138	4.56	Secondary School 24	257	8.48
Total				3029	100

Obtaining the Data

The data utilized in the study consisted of the 2018 OKMS sub-test raw scores and the 8th-grade year-end achievement scores (expressed in the hundredth system) of the same cohort of students for each subject, sourced from the e-school system of the respective schools. Each student's raw score for every OKMS subtest was calculated by subtracting one-third of the number of incorrect answers from the total number of correct answers in the subtest (MoNE, 2018a). In the 2018 OKMS, the verbal section comprised 50 questions (20 Turkish, 10 religious culture, 10 history, and 10 foreign languages), while the numerical section comprised 40 questions (20 mathematics and 20 science) (MoNE, 2018c). Aligned with the 8th-grade curriculum, OKMS was administered in two sections, numerical and verbal, encompassing a total of 90 multiple-choice questions. The first section, comprising 50 verbal questions, was allotted 75 minutes, whereas the second section, containing 40 numerical questions, was allocated 60 minutes (MoNE, 2018c). Regarding course assessment, a course's semester score is determined by computing the arithmetic average of the student's scores from exams, participation in course activities, and any projects assigned. The year-end score of a course is calculated as the arithmetic average of the first and second semester scores (MoNE, 2014).

Analysis of Data

Canonical correlation analysis was used to reveal the relationship between students' 8th-grade achievement scores and OKMS subtest scores. Grade 8 achievement scores in Turkish, mathematics, science, history, foreign language, and religious culture constitute independent (predictor) variables set 1, and OKMS subtest scores constitute dependent (criterion) variables set 2. Both data sets consist of six variables each, and the diagram of the canonical correlation analysis for sets 1 and 2 is shown in Figure 1.

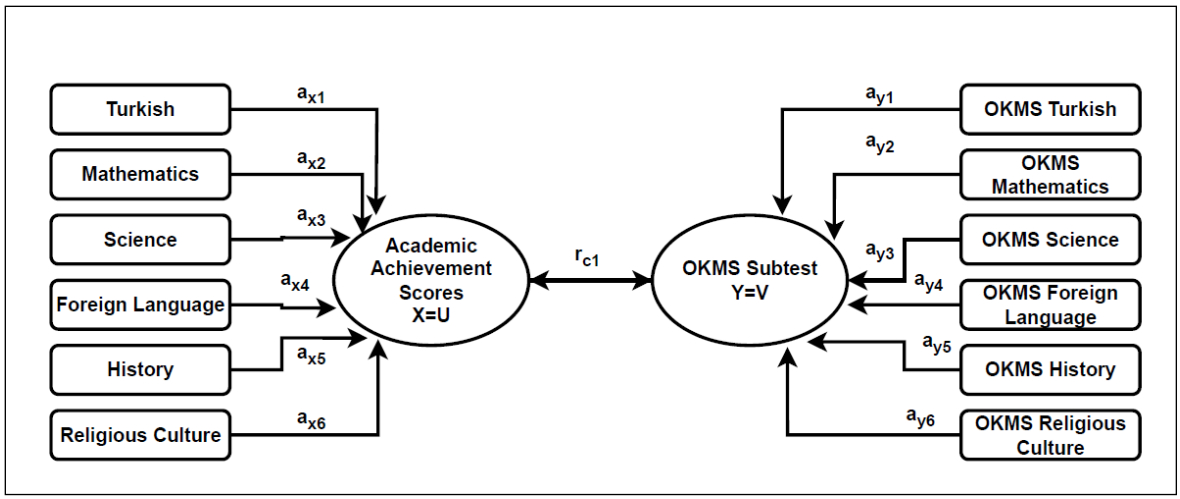

Figure 1. Canonical correlation diagram

According to Figure 1, a_{x1}, a_{x2}, a_{x3}, a_{x4}, a_{x5}, and a_{x6} represent the canonical loadings of the independent (X) variable, a_{y1}, a_{y2}, a_{y3}, a_{y4}, a_{y5}, and a_{y6} represent the canonical loadings of the dependent (Y) variable, and r_{c1} represents the relationship between the dependent and independent canonical variables.

In order to conduct canonical correlation analysis, it is necessary to test the assumptions that the variables belong to two data sets, whether the data set has extreme data, whether it is linear, whether there is multiple normal distributions and whether there is multiple linear connections, and whether the number of data points is at least 20 times the total number of variables (Karagöz, 2021; Küçüksille, 2016; Tabachnick & Fidell, 2013). All analyses of the data were conducted using SPSS 26.0. First, multicollinearity among independent (predictor) variables and multivariate normal distributions of scores were examined. Correlations between variables were examined for multiple. If the correlation value between variables is above 0.80, it indicates that there may be multicollinearity, and if it is above 0.90, it indicates that there may be a serious multicollinearity problem (Büyüköztürk, 2012). In addition, a tolerance value (TD) greater than 0.10 and a variance inflation factor (VIF) value less than 10 indicate that there is no multicollinearity problem (Büyüköztürk, 2012; Çokluk et al., 2016). The TD and VIF values for the variables are given in Table 2.

Table 2. Tolerance value and VIF values for variables

Variables	Courses	TD	VIF
8th grade	Turkish	.344	2.909
	Mathematics	.248	4.033
	Science	.206	4.863
	Foreign Language	.301	3.318
	History	.317	3.150
	Religious Culture	.429	2.329
OKMS	OKMS Turkish	.388	2.574
	OKMS Mathematics	.647	1.545
	OKMS Science	.449	2.225
	OKMS Foreign Language	.485	2.062
	OKMS History	.552	1.812
	OKMS Religious Culture	.626	1.597

When Table 2 is examined, it is seen that TD values greater than 0.10 and VIF values less than 10 meet the criteria that there is no multicollinearity problem. In addition, according to Table 4, the correlation coefficients were examined, and it was decided that there was no multicollinearity problem. Then, it was examined whether the data were univariately normally distributed. A skewness coefficient between -1.5 and +1.5 indicates that the data are normally distributed (Tabachnick & Fidell, 2013). According to Table 3, it was seen that the data were univariately normally distributed. In assessing multivariate normality, scatter diagrams were examined, revealing that each distribution closely approximated an ellipse. For the homoscedasticity, Box's M was examined, and it is seen that the assumption of homoscedasticity regarding the variables was met ($p>.05$). In this study, the complete data of 3357 students was accessed, the extreme values of the data set were examined, 328 student data were excluded from the analysis, and 3029 student data were used in the analysis. It was determined that the assumptions of canonical correlation analysis were met, and the application was started.

Results

Descriptive statistics for the variables of the 8th-grade courses and OKMS subtests are given in Table 3.

Table 3. Descriptive statistics for academic achievement scores and OKMS subtest scores

Variables	N	Min	Max	Mean	Standard Deviation	Skewness	Kurtosis
Turkish	3029	26.60	100	77.79	14.86	-.57	-.38
Mathematics	3029	14.20	100	68.14	22.58	-.24	-1.11
Science	3029	19.80	100	74.66	16.95	-.46	-.68
Foreign Language	3029	18.80	100	73.21	19.59	-.50	-.76
History	3029	20	100	75.50	17.27	-.52	-.58
Religious Culture	3029	37	100	86.25	11.28	-1.10	1.04
OKMS Turkish	3029	-2.66	20	12.29	4.55	-.41	-.42
OKMS Mathematics	3029	-5.66	11.66	2.39	3.39	.52	-.23
OKMS Science	3029	-5.33	20	7.65	4.78	.09	-.69
OKMS Foreign Language	3029	-3	10	4.84	3.42	-.00	-1.18
OKMS History	3029	-.33	10	7.59	2.37	-.91	.05
OKMS Religious Culture	3029	4.66	10	9.02	1.40	-1.43	1.19

According to Table 3, the highest average in the 8th-grade course variable belongs to the religious culture course with 86.25, followed by Turkish with 77.79, history with 75.50, science with 74.66, and foreign language with 73.21. The lowest average belongs to mathematics, with 68.14. In the variables of the OKMS subtests, it was determined that the highest average among the subtests with 20 questions belonged to Turkish with 12.29 and the lowest average belonged to mathematics with 2.39. In the subtests with 10 questions, the highest success was in the religious culture subtest with 7.59, and the lowest success was in the foreign language subtest with 4.84. When the skewness and kurtosis coefficients are analyzed, it is seen that the skewness values are between -1.43 and 0.52 and the kurtosis values are between -1.18 and 1.19.

The correlations of the variable sets included in the canonical correlation analysis, both within and between the sets, are given in Table 4.

Table 4. Correlations between variables

	Turkish	Mathematics	Science	Foreign Language	History	Religious Culture	OKMS Turkish	OKMS Mathematics	OKMS Science	OKMS Foreign Language	OKMS History	OKMS Religious Culture
Turkish	1	.74**	.74**	.73**	.70**	.64**	.69**	.50**	.60**	.62**	.52**	.53**
Mathematics	.74**	1	.84**	.73**	.72**	.64**	.68**	.59**	.66**	.62**	.52**	.49**
Science	.74**	.84**	1	.78**	.75**	.68**	.69**	.56**	.71**	.66**	.56**	.53**
Foreign Language	.73**	.73**	.78**	1	.74**	.66**	.67**	.50**	.62**	.78**	.53**	.50**
History	.70**	.72**	.75**	.74**	1	.70**	.67**	.48**	.62**	.62**	.62**	.52**
Religious Culture	.64**	.64**	.68**	.66**	.70**	1	.61**	.40**	.54**	.55**	.52**	.55**
OKMS Turkish	.69**	.68**	.69**	.67**	.67**	.61**	1	.51**	.66**	.65**	.60**	.56**
OKMS Mathematics	.50**	.59**	.56**	.50**	.48**	.40**	.51**	1	.53**	.50**	.39**	.30**
OKMS Science	.60**	.66**	.71**	.62**	.62**	.54**	.66**	.53**	1	.62**	.56**	.48**
OKMS Foreign Language	.62**	.62**	.66**	.78**	.62**	.55**	.65**	.50**	.62**	1	.52**	.44**
OKMS History	.52**	.52**	.56**	.53**	.62**	.52**	.60**	.39**	.56**	.52**	1	.50**
OKMS Religious Culture	.53**	.49**	.53**	.50**	.52**	.55**	.56**	.30**	.48**	.44**	.50**	1

**p<0.01

When Table 4 is analyzed, it is found that all correlations between the variables are positive and significant at the .01 level. When the correlations between the independent variables, i.e., 8th-grade achievement scores, are examined, the highest correlation is between mathematics and science at the level of .84, and the lowest correlation is between religious culture and Turkish at the level of .64. Regarding the dependent variables, the highest correlation was between science and Turkish at the level of .66, and the lowest correlation was between religious culture and mathematics at the level of .30. When the relationship between independent variables and dependent variables is examined, it is seen that the highest correlation is .78 between foreign language courses and the lowest correlation is .40 between the 8th-grade religious culture course and the OKMS mathematics subtest.

Table 5 presents the summary results of the canonical correlation analysis between the dependent and independent variables. Table 5 shows the first canonical correlation coefficients, which are significant for the model and have the highest canonical correlation coefficient. In addition, total variance and total redundancy values are also given in the table. Total redundancy reveals what percentage of the variability in the relevant variable set is explained by the other variable set (Karagöz, 2021; Tabacnick & Fidell, 2013).

Table 5. Summary results of canonical correlation analysis

		I.Set Grade 8 year-end academic achievement scores	II. Set OKMS subtest raw scores
Number of variables		6	6
Total variance		%100	%100
Total redundancy		%60.1	%48.6
Variables	1	Turkish	OKMS Turkish
2		Mathematics	OKMS Mathematics
3		Science	OKMS Science
4		Foreign Language	OKMS Foreign Language
5		History	OKMS History
6		Religious Culture	OKMS Religious Culture

When Table 5 is examined, the total variance ratio obtained for the six variables is 100% in the 8th-grade year-end academic achievement scores set and 100% in the OKMS subtest raw scores set. 60.1% of the variance of the 8th-grade year-end academic achievement scores set is explained by the OKMS subtest raw scores variable set. 48.6% of the variance in the OKMS subtest raw scores variable set is explained by the 8th-grade year-end academic achievement scores variable set. According to the table, the 8th-grade academic achievement scores set is explained at a higher rate than the OKMS subtest raw scores variable set.

Table 6 presents the results of the canonical correlation analysis conducted to examine the relationship between the 8th-grade year-end academic achievement scores and the raw scores of the OKMS subtest.

Table 6. Results of canonical correlation analysis

	Canonical Correlation	Canonical R^2	Eigenvalue	Wilks Lambda	F	df	Error df	p
1	.873	.76	3.21	.162	189.197	36	13251.33	.00
2	.443	.19	.244	.681	48.774	25	11212.87	.00
3	.308	.09	.105	.848	32.077	16	9223.83	.00
4	.194	.03	.039	.936	22.397	9	7350.03	.00
5	.149	.02	.023	.973	20.777	4	6042.00	.00
6	.071	.005	.005	.995	15.147	1	3022.00	.00

According to Table 6, since there are 6 different variables in each variable set of the canonical correlation analysis, 6 different canonical correlation pairs emerged. It is seen that all canonical correlation pair coefficients are statistically significant ($p<$ .00). Accordingly, according to the first canonical correlation between the 8th-grade year-end achievement grades and the variable sets of the OKMS subtests, there is a high linear relationship at the level of .87 between the 8th-grade and the OKMS subtest scores. The square of the canonical correlations gives the common variance explained between the data sets. The first pair of canonical variables in Table 6 explains 76% of the common variance, while the others explain 19%, 9%, 3%, 2%, and 0.5%, respectively. Hence, although all canonical coefficients are significant, the first canonical correlation pair is statistically more significant.

In order to decide which of the canonical correlation coefficients are practically important, the graph of eigenvalues in Figure 2 was prepared.

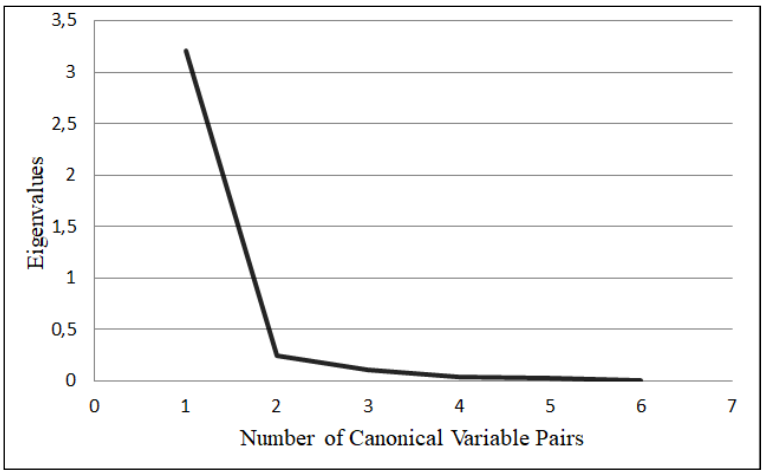

Figure 2. Eigenvalues plot for pairs of canonical variables in the data sets

When the eigenvalues in Figure 2 are analyzed, it is seen that the eigenvalue of the first canonical pair is quite high and the others decrease rapidly. This shows that the first canonical correlation coefficient gives more significant results than the other five canonical correlation coefficients.

Table 7 shows the standardized linear canonical correlation coefficients obtained for each of the variables. Since there were 6 independent and 6 dependent variables in the canonical correlation analysis, 6 canonical variable pairs were obtained as a result of the analysis. From the independent variable set of 8th-grade academic achievement scores, U1, U2, U3, U4, U5, U6, and from the dependent variable set of OKMS subtest scores, V1, V2, V3, V4, V5, and V6 canonical variables were obtained. According to the results of the canonical correlation analysis, since the first canonical correlation coefficients were statistically significant considering the explained variance and eigenvalues, canonical variable pairs U1 and V1 were interpreted. The standardized canonical coefficients of the canonical variable pairs in Table 6 indicate the standard deviation type of variation in the canonical variable with a one standard deviation increase in the independent variables.

Table 7. Standardized for dependent and independent variables, canonical correlation coefficients

Independent variables/Set 1	U1	U2	U3	U4	U5	U6
Turkish	-.17	.22	-.32	-.99	-.57	-1.18
Mathematics	-.15	.34	1.05	-.27	-1.10	1.21
Science	-.20	.56	.60	.37	1.81	-.83
Foreign Language	-.35	-1.76	.08	.15	-.06	.19
History	-.14	.55	-.73	1.35	-.63	-.18
Religious Culture	-.08	.18	-.83	-.70	.52	.90
Dependent variables/Set 2	V1	V2	V3	V4	V5	V6
OKMS Turkish	-.29	.31	-.17	-.69	-.85	-1.07
OKMS Mathematics	-.14	.28	.67	-.08	-.57	.80
OKMS Science	-.19	.47	.63	.30	1.12	-.43
OKMS Foreign Language	-.37	-1.36	-.02	.16	.09	.13
OKMS History	-.09	.34	-.65	1.05	-.29	.23
OKMS Religious Culture	-.15	.13	-.50	-.71	.50	.72

According to Table 7, the first canonical variables were obtained for the 8th-grade academic achievement scores and OKMS datasets. The linear equations of the pair of variables estimating the maximum relationship are given below.

$$U1 = (-.17) * Turkish + (-.15) * Mathematics + (-.20) * Science + (-.35) * Foreign\ Language + (-.14) * History + (-.08) * Religious\ Culture$$

$$V1 = (-.29) * OKMS\ Turkish + (-.14) * OKMS\ Mathematics + (-.19) * OKMS\ Science + (-.37) * OKMS\ Foreign\ Language + (-.09) * OKMS\ History + (-.15) * OKMS\ Religious\ Culture$$

According to these equations, the most influential variable in the formation of U1 and V1 canonical variables is the 8th-grade foreign language course with -.35 and OKMS foreign language with -.37. The least effective variable in the formation of U1 and V1 canonical variables is the 8th-grade religious culture academic achievement score

variable with -.08 and the -.09 score obtained from the OKMS history subtest. Then, it is seen that the effective variables in the formation of the U1 canonical variable are science with -.20, Turkish with -.17, mathematics with -.15, history course with -.14, and the effective variables in the formation of the V1 canonical variable are OKMS Turkish with -.29, OKMS science with -.19, OKMS religious culture with -.15, and OKMS mathematics with -.14.

Table 8 presents the canonical loadings and cross-loadings of the 8th-grade year-end academic achievement score and OKMS subtest raw score variable sets. Canonical loadings indicate the relationship between canonical variables and each original variable within its own cluster (Sevindik, 2009). When the canonical loadings of the dependent and independent variable sets are negative, it means that a decrease in one variable is associated with a decrease in the other variable, which allows all of them to be interpreted as positive (Özdemir & Gelbal, 2014).

Table 8. Canonical and cross-loadings for dependent and independent variables

	Canonical Loads	Cross Loads		Canonical Loads	Cross Loads
Independent variables	U1	V1	Dependent variables	V1	U1
Turkish	-.86	-.75	OKMS Turkish	-.87	-.76
Mathematics	-.88	-.76	OKMS Mathematics	-.66	-.58
Science	-.91	-.80	OKMS Science	-.81	-.71
Foreign Language	-.92	-.80	OKMS Foreign Language	-.87	-.76
History	-.86	-.75	OKMS History	-.70	-.61
Religious Culture	-.78	-.68	OKMS Religious Culture	-.66	-.58

According to Table 8, according to the canonical and cross-loadings calculated between the 8th-grade and OKMS, the highest factor loading in the formation of the U1 canonical variable belongs to the 8th-grade foreign language course at the level of .92 and the lowest factor loading belongs to the 8th-grade religious culture course at the level of .78. When the cross-loadings are analyzed, it is seen that the 8th-grade foreign language course with .80 and the science course with .80 made the greatest contribution to the V1 canonical variable. In other words, the correlation between the V1 linear component of the OKMS subtest scores and the academic achievement scores of the 8th-grade foreign language and science courses is high. When the role of 8th-grade academic achievement scores in explaining the OKMS subtest scores is analyzed, it is seen that the academic achievement scores of 8th-grade foreign language and science courses come to the forefront. Again, when the canonical and cross-loading values between OKMS subtest scores and 8th-grade academic achievement scores are analyzed, it is seen that OKMS Turkish and OKMS foreign language courses made the biggest contribution to the formation of the V1 canonical variable with .87. When the cross-loadings are analyzed, the most important contribution to the U1 canonical variable is made by OKMS Turkish and OKMS foreign language courses with .76. However, when the role of OKMS subtest scores in explaining 8th-grade academic achievement scores is analyzed, the scores of OKMS Turkish and OKMS foreign language courses come to the forefront.

The calculated relationships of the canonical correlations of the first canonical pair between the dependent and independent variables are shown in Figure 3.

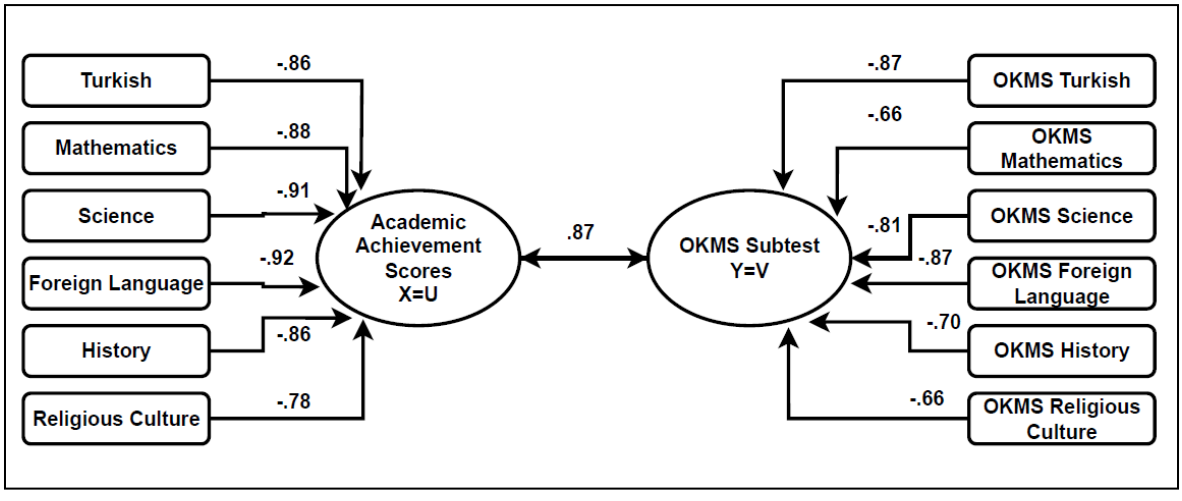

Figure 3. Summary of canonical correlation relationships

When Figure 3 is examined, it is seen that the canonical correlation value between the 8th-grade academic achievement scores and OKMS subtest data sets is .87. In terms of the canonical correlation relationships of the variables in Set 1, from the largest to the smallest value, foreign language (-.92), science (-.91), mathematics (-.88), Turkish and history (-.86), and religious culture (-.78) variables are interpreted as part of Set 1. In terms of the canonical correlation relationships of the variables in the second set, OKMS Turkish and OKMS foreign language (-.87), OKMS science (-.81), OKMS history (-.70), and OKMS mathematics and OKMS religious culture (-.66) variables are considered part of this set.

For the first model, the variance values and redundancy coefficients obtained for the variables 8th-grade year-end academic achievement scores (independent) and OKMS subtest raw scores (dependent) are given in Table 9.

Table 9. Variances and redundancy coefficients of variables

Grade 8 academic year-end achievement scores			OKMS Subtest Scores		
Canonical variables	Variance explained	Redundancy coefficient	Canonical variables	Variance explained	Redundancy coefficient
U1	.76	.58	V1	.59	.45
U2	.05	.01	V2	.08	.02
U3	.06	.01	V3	.11	.01
U4	.05	.00	V4	.08	.00
U5	.03	.00	V5	.07	.00
U6	.05	.00	V6	.07	.00
Total	1	0.60		1	0.48

When Table 9 is examined, 48% of the variance in the OKMS variable set is explained by the 8th-grade variables. The contribution of the U1 canonical variable to its own variable set is 76%, and the variance explained by the OKMS variable set is 58%. 60% of the variance in the 8th-grade course set is explained by the OKMS variables. In the variable set of OKMS subtest scores, the contribution of the V1 canonical variable to its own variable set is 59%, and the variance explained by the 8th-grade variable set is 45%. These results show that there is a high correlation between Grade 8 and OKMS variable sets. In addition, according to the table, it is seen that the U1 and V1 canonical variable pairs have a sufficient contribution to the variance, and the contribution of other canonical pairs to the variance is very weak.

Conclusion and Discussion

In this study, the relationship between 2018 Secondary Education Institutions Central Examination subtest raw scores and 8th-grade year-end academic achievement scores was examined with canonical correlation analysis.

The relationship between OKMS 2018 Turkish, mathematics, science, foreign language, history, and religious culture subtest scores and 8th-grade year-end academic achievement scores could be explained by a single canonical variable pair. This finding can be explained by a single pair of canonical variables. This finding is in line with the relationship between seventh grade course achievement grade point averages and 2002 subtests in the Secondary Education Institutions Student Selection and Placement Examination (OKÖSYS) (Güzeller, 2005), the relationship between sixth grade school subjects and sixth grade SBS 2008 subtest scores (Doğan & Sevindik, 2011), and the relationship between eighth grade year-end academic achievement scores and 8th-grade year-end academic achievement scores. Grade 8 academic achievement scores and 8th-grade SBS 2012 subtest scores (Parlak & Tatlıdil, 2013), and the relationship between 8th-grade year-end achievement scores and scores in the OKMS 2019 subtests (Köroğlu & Doğan, 2022) with a single pair of canonical variables.

Another finding of the study was that there was a high positive relationship between 8th-grade academic achievement scores and OKMS subtest scores, and the contribution of this canonical variable pair to the common variance was .76. An increase in 8th-grade academic achievement scores leads to an increase in OKMS subtest scores. As the 8th-grade academic achievement scores of the students increase, it is expected that the OKMS subtest scores will also increase. This result can be interpreted as indicating that the increase in students' school achievement scores will also increase their OKMS achievement scores. Similar to the results of the study, a high positive correlation between students' school achievement scores (OBP) and central exam scores was found in MoNE's reports (MoNE, 2018c, 2019b, 2020, 2022a). Similarly, in many studies in the literature, it has been found that there is a highly significant relationship between academic achievement scores and central exam subtest scores (Atasayar, 2019; Demir, 2022; Deniz, 2003; Doğan & Sevindik, 2011; Güzeller, 2005; Köroğlu & Doğan, 2022; Öntaş et al., 2020; Parlak & Tatlıdil, 2014; Sarı, 2019; Sevindik, 2009). Parlak and Tatlıdil (2014) examined the relationship between the scores of the Placement Test (SBS) for 8th graders and school achievement scores with

canonical correlation and found that there was a significant high linear relationship between test scores and school achievement scores. In fact, there is a strong relationship between students' academic achievement and their subtest test scores. Similarly, it is emphasized that students' prior knowledge has an important contribution to the learning process (Baş, 2013; Güzeller, 2012; Kan, 2005; Sınacı, 2019). Since both school academic achievement and OKMS questions measure the 8th-grade curriculum outcomes, it is expected that the results will be related. It is thought that the auxiliary resources, such as sample questions and study questions, that the Ministry has been preparing and publishing every month for students to prepare for the OKMS since 2018 (MoNE, 2022a), support this process.

According to the standardized canonical correlation between the two sets, it was determined that the predictive power of the 8th-grade foreign language and science courses was high, while the predictive power of the academic achievement scores of the religious culture course was low in explaining the OKMS subtest raw scores. While there are studies that support the findings of this study (Güzeller, 2005; MoNE, 2019b), there are studies that differ (Doğan & Sevindik, 2011; Köroğlu & Doğan, 2022; MoNE, 2020; Parlak & Tatlıdil, 2014; Sevindik, 2009). Güzeller (2005) examined the relationship between academic achievement scores in primary school seventh grade courses and OKÖSYS subtests with canonical correlation analysis and found that science courses made the most important contribution to the set of course variables. Sevindik (2009) examined the concurrent validity of SBS and found that the variable that predicted academic achievement in the 6th and 7th grade SBS subtests at a low level belonged to the foreign language course. Parlak and Tatlıdil (2014), in their study on the concurrent validity of the SBS for 8th graders, determined that although the predictive validity of mathematics and Turkish courses was high, the predictive validity of English courses was low. Köroğlu and Doğan (2022) found that the lowest predictor variable in explaining the OKMS subtest scores was the 8th-grade foreign language course. Considering that the sample size and homogeneity of the groups are effective in the studies, this study differs from other studies in terms of including 3029 students from 24 different secondary schools. Based on the findings of the study, it can be said that an increase in foreign language and science courses in the set of course variables will lead to an increase in other courses. In addition, the low predictive power of the religious culture course in explaining the OKMS subtest raw scores can be explained by the course hours and the number of questions.

As a result of the research, the 8th-grade year-end academic achievement scores explained 48.6% of the total variance in the set of variables of OKMS subtest raw scores. Likewise, the variable set of OKMS subtest raw scores explains 60.1% of the total variance in the set of 8th-grade year-end academic achievement scores. The fact that 8th-grade courses explain 48.6% of the variance in OKMS indicates that as students' academic achievement increases, their test scores may also increase. These explained variances are at a level that can be considered sufficient. According to this rate, it is possible to say that OKMS, which was prepared according to the secondary school curriculum, serves its purpose. It can be said that 8th-grade course achievement scores can predict OKMS subtest raw scores sufficiently. In other words, it is possible to say that the concurrent validity of OKMS scores is at a sufficient level. This result of the study is similar to the results of Deniz (2003), Doğan and Sevindik (2011), Güzeller (2005), Köroğlu and Doğan (2022), and Parlak and Tatlıdil (2014). Güzeller (2005) examined the relationship between the achievement scores of the seventh grade courses and the subtest scores of the OKÖSYS and found that the variance values explained were at a sufficient level and supported the purpose of the OKÖSYS prepared according to the primary education curriculum.

In general, it is seen that 8th-grade academic achievement scores are highly positively correlated with OKMS subtest scores. Since the relationship between the two data sets gives the agreement of the subtest raw scores with the course achievement measures (Deniz, 2003), it can be stated that the concurrent validity of the OKMS scores in this study is at a sufficient level. Hattie and Gan (2011) emphasized that the feedback given to students during the teaching process about the level at which they can reach the achievements of the curriculum and whether they have the desired behavioral changes positively affects the learning process. Since students' school academic achievement scores are positively correlated with the OKMS subtest scores, it reveals that it is important to identify the subjects in which students are unsuccessful or deficient in the teaching process and to eliminate these deficiencies.

Limitations and Recommendations

Although this study explained the relationship between achievement scores and OKMS subtest raw scores, there is a need for further research to address the limitations. This research covers the academic data of 8th-grade students studying in 24 different secondary schools in Bursa province. The first limitation is that the study data was collected only from Bursa province. The second limitation is that only public secondary schools were included in the study. Future studies should be carried out covering different provinces of Turkey, and students in private secondary schools should also be included in the study. In addition, in order to explain the students' achievement in the OKMS, the end-of-year achievement scores for each course were considered in the study. Year-end

achievement scores include written scores, course participation scores, and project scores, if any. In future studies, only written scores can be included.

Acknowledgements or Notes
The authors received no financial support for the research and/or authorship of this article.

Ethical Approval
Ethical permission (Date: 22.05.2023- Number: E-92662996-044-110541) was obtained from the Bursa Uludağ University Ethics Committee for this research.

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International Journal of Contemporary Educational Research
Volume 11, Number 2, June 2024, Page 158-173 Article Type: Research Article

Effectiveness of a Psychoeducational Group Intervention Infused with Psychodrama to Enhance Group Processes and Alleviate Burnout among Public Institution Call Center Employees: A Pilot Study

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Abstract
This quasi-experimental study examines the effectiveness of a psychoeducational group intervention program consisting of psychoeducation sessions and group exercises based on psychodrama warm-up activities resulting from the needs of public sector call center agents in the workplace. Forty municipality call center employees from two municipalities (intervention and control groups) completed pre- and post-test measures before and after the intervention program. Within the scope of the study in sociodemographic form, the Brief Psychological Resilience Scale (BPRS), Maslach Burnout Inventory (MBI), Warwick-Edinburgh Mental Well-Being Scale (WEMWBS), Organization-Based Self-Esteem Scale (OBSES), Group Cohesion Scale (GCS), and Group Atmosphere Scale (GAS) were used. A follow-up session and follow-up test for the intervention group took place one month after the completion of the intervention sessions. The intervention group showed significant pre-to-post-test short-term effects on psychological resilience and pre-to-follow-up long-term effects on group atmosphere scores. However, there was no significant change in burnout, well-being, or organization-based self-esteem scores. Moreover, no significant difference was noted in the control group from pre- to post-test, except for the decrease in the group atmosphere scores.

Keywords: Burnout, Resilience, Mental well-being, Self-esteem, Group support, Call center

Citation
Uysal, B., Özkul, S. & Bayraktar, A. (2024). Effectiveness of a psychoeducational group intervention infused with psychodrama to enhance group processes and alleviate burnout among public institution call center employees: a pilot study. *International Journal of Contemporary Educational Research, 11*(2), 158-173. https://doi.org/10.52380/ijcer.2024.11.2.540

Received	17.08.2023
Accepted	04.03.2024
Publication	15.06.2024
Peer-Review	Double anonymized - Double Blind
Plagiarism Checks	Yes - iThenticate
Conflicts of Interest	The author(s) has no conflict of interest to declare.
Complaints	ijceroffice@gmail.com
Grant Support	The author(s) acknowledge that they received no external funding in support of this research.

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Introduction

Public sector call centers in Turkey started to develop at the beginning of the 21st century, establishing municipalities as a conduit for updates, complaints, and problem-solving (Mert, 2017). According to the Call Center Association's Turkey call center 2018 market data (2018), 96.000 people are employed in the call center sector, and 11% are public sector call center employees.

Call center work requires multiple tasks simultaneously, which can be exhausting and stressful (Ferreira & Saldiva, 2002). In addition to stressful work conditions, call center employees' behaviors are limited by display rules, which creates emotional dissonance (Ashill et al., 2009; Wegge et al., 2006). Emotional dissonance can be defined as the difference between the emotions that are felt and expressed (Wegge et al., 2010). Emotional dissonance becomes significant, especially for call center employees with high incoming calls, leading to emotional exhaustion (Molino et al., 2016).

According to Leiter (1989), emotional exhaustion resulting from emotional dissonance is the first step of the burnout process. Burnout is a work-related psychological impairment involving three phases: emotional exhaustion, depersonalization, and diminished personal accomplishment (Maslach et al., 1997; Awa et al., 2010; Maslach et al., 2012). Burnout is included in ICD-11 under the "Problems related to work and unemployment" group as a factor affecting health (ICD-11 for Mortality and Morbidity Statistics, 2019). In addition to ICD-11, the WHO Diseases and Related Disorders Statistical Classification System lists burnout syndrome under the category of life management problems (WHO, 2004). This work-related psychological impairment negatively affects organizations and employees (CDC, 2014; Jourdain & Chênevert, 2015). The level of emotional exhaustion was found to be related to depression, while the stress of burnout increases the risk for physical illness, Post-Traumatic Stress Disorder (PTSD), and General Anxiety Disorder (GAD) (Bianchi et al., 2014; CDC, 2014).

Subsequently, organizations and researchers are increasingly interested in finding ways to reduce burnout (Osatuke & Belton, 2013). Despite its importance, few studies have been conducted on the effectiveness of burnout interventions for public sector call center employees (Bond et al., 2008; Le Blanc & Schaufeli, 2008; Tjosvold et al., 2014). Some of these interventions were based on cognitive behavioral therapy (CBT), and others on positive psychology principles (Lagerveld et al., 2012; Maricuţoiu et al., 2016; Morse et al., 2012). However, to our knowledge, a psychoeducational group program with group exercises mainly based on psychodrama warm-up techniques has not been conducted before.

Group psychodrama interventions conducted with non-call center employees to reduce burnout were found to be effective (Kähönen et al., 2012; Özbaş & Tel, 2016; Salmela-Aro et al., 2004). According to Blatner (2004), the principles and action techniques introduced by psychodrama can complement other approaches to nourish the creativity and spontaneity of participants. Given that previous studies have demonstrated the effectiveness of group psychodrama in reducing burnout, this study incorporates psychodrama warm-up techniques as a supplementary component of the psychoeducational group program aimed at mitigating burnout. As a pilot study, this research is an initial attempt to evaluate the efficacy of a psychoeducational group intervention program for public sector call center employees at risk of burnout, utilizing psychodrama warm-up techniques as group exercises. Pilot studies are often used to address uncertainties related to the applicability of intervention trial strategies or to assess the preliminary impacts of the intervention (Pearson et al., 2020). The insights derived from this pilot study will contribute to the development of a more comprehensive intervention research project to address burnout and its associated factors among call center employees.

According to Kotzé and Lamb (2012), burnout, psychological well-being, and dealing with stressful work demands can be predicted by looking at the internal and external resources of the person. For that reason, the present study utilizes a comprehensive theoretical framework of the job demand-resources (JD-R) model (Bakker et al., 2003; Demerouti et al., 2001; Schaufeli & Bakker, 2004; Schaufeli et al., 2009). The central assumption of the JD-R model is that job demands elicit an energy deficiency response, whereas job resources increase the motivational process (Bakker & Demerouti, 2016). The third variable in the JD-R model is personal resources related to job resources, contributing to the motivational process by decreasing burnout (Huang et al., 2016). Using this framework, the present study examines the effectiveness of a group intervention program to increase personal and job resources by increasing mental well-being and decreasing burnout among public sector call center employees.

Personal resources such as resilience and self-efficacy are found to be open to change through interventions (Luthans et al., 2006). Psychological resilience (Kotzé & Lamb, 2012; Mayordomo et al., 2016) and organization-based self-esteem regarding self-efficacy (Gardner & Pierce, 1998; Lee, 2003; Xanthopoulou et al., 2007) are the

personal resources addressed in this study, while group atmosphere and group cohesion are the job resources considered as forms of team support.

The present study aims to foster the personal and job resources of call center employees with a psychoeducational intervention that utilizes group psychodrama techniques. As a part of this pilot intervention study, we hypothesize that the intervention program will effectively decrease burnout symptoms, such as emotional exhaustion and depersonalization, while increasing personal accomplishment, another component of burnout symptoms. Secondly, we hypothesize that the implemented intervention program will effectively increase psychological resilience, organization-based self-esteem, mental well-being, group cohesion, and atmosphere. Moreover, we expect all these enhancements will be sustained at the 1-month follow-up test. At the same time, the participants in the control group will display no significant differences in terms of these variables.

Method

Recruitment

Data for the present study was collected at a Psychotherapy Practice and Research Center in Istanbul. Participant recruitment was facilitated through convenience sampling by an existing partnership with two municipalities' call centers and was conducted in November 2019 in the province of Istanbul, Turkey. One municipality in Istanbul applied to our center because their employees needed support due to burnout.

The second municipality was recruited based on its similarities to the first recruited municipality in terms of the workplace and newly developed service approaches. The first municipality, which applied to us, was selected to recruit the intervention group participants, while the control group participants were recruited from the second municipality. The participants of the intervention and control groups were knowingly selected based on the municipality they work for to facilitate positive relationships among call center agents who work within a team as a part of the same organization. Due to ethical considerations, the control group participants were given the choice to obtain the same benefits of group intervention as a waitlist condition group. However, in the second municipality, participants did not request further benefits.

Participants

Forty individuals (20 individuals per municipality) indicated an interest in participating in the project. Overall, 90% of all participants (n = 38) who indicated interest completed the study with pre-posttest measures (Figure 1). Data from participants in the intervention group (n = 19) and control group (n = 19) were used for all participant characteristics reported in the results section and all analyses conducted within the study.

Procedure

The authors' University Ethics Committee approved the research protocol. Participants were assigned to two conditions (intervention and control) according to the municipality they worked for. All study participants signed informed consent forms and completed socio-demographic and pre-test measures. Participants in the intervention group were randomly assigned into two distinct groups (due to the ethical consideration of not disrupting municipality work by removing all the call center agents from the line at once). These two intervention groups completed sessions on different days of the week (the first group of nine participants on Mondays and the second group of ten participants on Thursdays). The intervention was held in six sessions over six weeks. Each session was identical for both intervention groups regarding content and flow and lasted 135 minutes. Attendance was taken at each session, and being absent for more than one session was considered a dropout. At the end of six weeks, participants from both the control and intervention groups completed post-test measures. One month later, intervention group participants were invited to a follow-up session. At the beginning of the follow-up session, participants completed follow-up test measures.

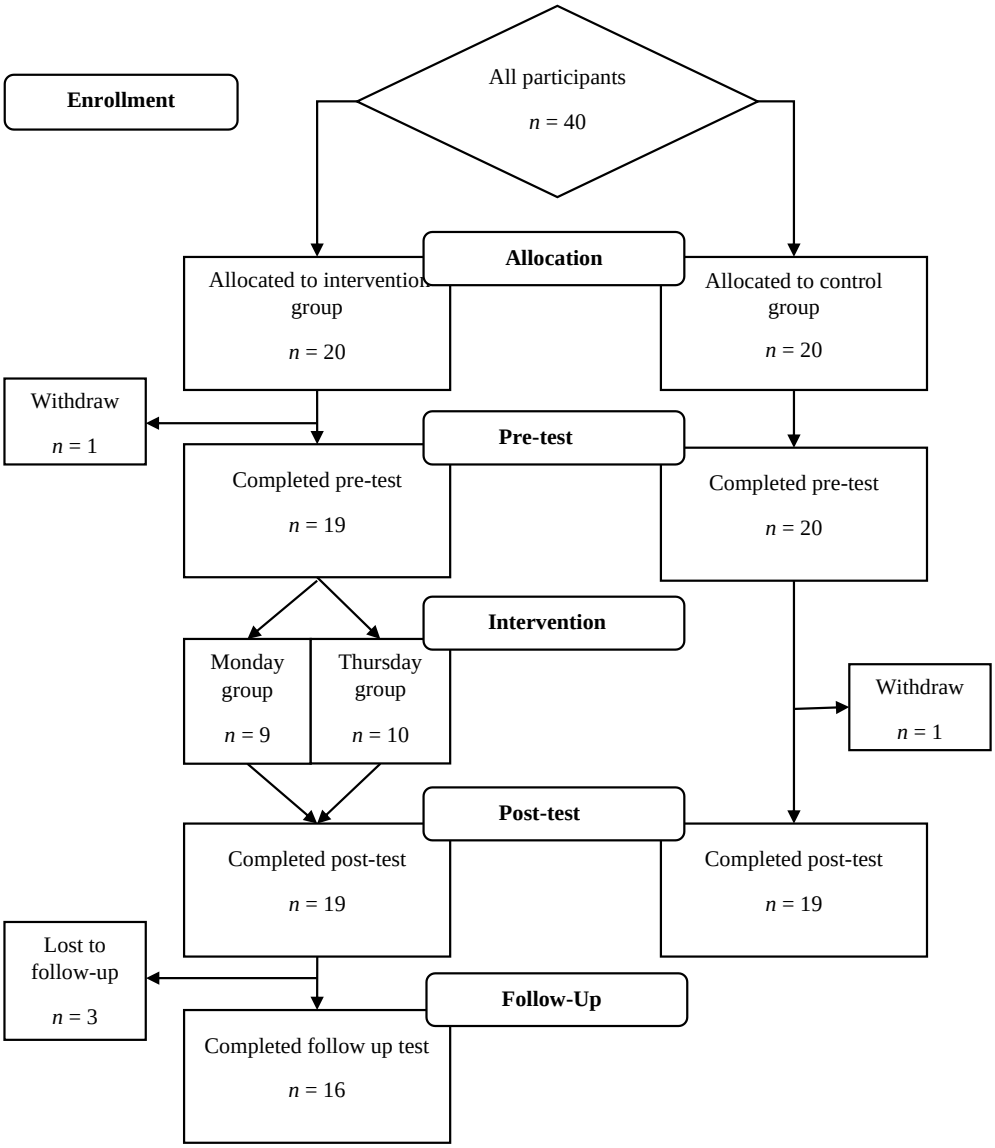

Figure 1. Flowchart of Participants

Formulation of the Psychoeducational Group Intervention Program

The intervention program was planned according to the three-phase intervention research model of Goldenhar et al. (2001). Initially, the psychosocial needs of the target population were determined by semi-structured interviews conducted with the target group according to the literature regarding the psychosocial needs of call center employees. Afterwards, the project team developed a tailored psychoeducational group intervention program consisting of psychoeducation and group exercises that were primarily based on psychodrama warm-up techniques. The intervention program was implemented by this article's third author, a clinical psychologist and FEPTO-certified psychodrama group psychotherapy co-psychotherapist. The effectiveness of the program was assessed with pre-posttest and follow-up measures.

Psychoeducational groups are groups where learning a psychological concept or subject is the primary emphasis (Gladding, 1995). Psychoeducational groups are an amalgamation of educational groups and group therapies. Therefore, they encapsulate many features of each in that these groups primarily emphasize awareness and cognition following emotions and behavior (Brown, 2004, p. 5). A variety of formats are used by psychoeducational groups (Brown, 2004, p. 98). The present study's psychoeducational group program comprises psychoeducational presentations and group exercises. Group exercises improve comfort levels and create an environment for experiential learning and relaxation (Jacobs et al., 2011, p. 220).

The psychoeducation and group exercise contents of the intervention program were selected based on the needs of the target group of the study (*Table 1*). Each session consisted of 45 minutes of psychoeducation and 90 minutes of group exercises. Four of the six sessions included a psychoeducation session. Psychoeducation sessions were aimed at introducing fundamental concepts and techniques related to the main topics of the session. In each group exercise session, the facilitator presented exercises primarily based on psychodrama warm-up techniques to consolidate psychoeducational contents through experiential means. Psychodrama warm-up activities were utilized to nurture participants' creativity and spontaneity to enhance well-being (Blatner, 2004, p. 1). At the end of each psychoeducational group session, group members shared their opinions and feelings regarding psychoeducation and group exercises.

Table 1. Intervention Program

Session	Psychoeducation Content	Group Exercises
1st Session		Introduction and warm-up Psychodrama warm-up techniques Analysis of group structure Determining the specific needs of the groups
2nd Session	Knowing oneself and self-esteem Psychological resilience	Self-confidence sculpture exercise
3rd Session	Definitions and sources of stress Flow Theory Dealing with stress	Stress spectrogram Common stresses list Make your advertisement
4th Session	Emotional awareness Dealing with negative emotions Emotion regulation skills	Emotional awareness spectrogram A walk in the forest Meeting of emotions Waxwork
5th Session	Need to belong Love, being loved, needs to be accepted Close relationships Effects of group relationships on our mental well-being	Belonging spectrogram Group tree, animal, human Build up something Drawing exercise
6th Session		Closing the group and ending

Measures

Self-report measures (pen and paper) were used for this study.

Demographic Questionnaire

Participants self-reported their age, gender, marital status, number of children, education, vocational education of call center job, and years of experience in the public sector call center.

Brief Psychological Resilience Scale (BPRS)

The BPRS is a 6-item, one-factor scale developed by Smith et al. (2008) for measuring psychological resilience and adapted into Turkish by Doğan (2015). A 5-point Likert scale is used to rate items. Higher scores on the scale represent higher psychological resilience. The internal consistency coefficient was .83 in the Turkish adaptation study.

Organization-based Self-esteem Scale (OBSE)

The OBSE was developed by Pierce et al. (1989) as a 10-item, one-factor scale that measures the participants' organization-based self-esteem. The Turkish adaptation of the scale was completed by Akalın (2006). The scale is rated on a 7-point Likert scale, and the Cronbach alpha coefficient was .93. A high score indicates high organization-based self-esteem.

Maslach Burnout Inventory (MBI)

The MBI is a 22-item scale developed by Maslach and Jackson (1981), and İnce and Şahin (2015) completed an adaptation of the MBI-EF (educator form) for the Turkish population. This scale measures the burnout level of the participants. The original scale consists of three subscales: emotional exhaustion, depersonalization, and personal accomplishment. In contrast to emotional exhaustion and depersonalization, the personal accomplishment subscale items are reverse-coded. Higher scores in all of the subscales depict a higher risk of burnout. Cronbach alpha coefficients were .88 for emotional exhaustion, .76 for depersonalization, and .74 for personal accomplishment. This study used this scale with some modifications to the adapted Turkish- form. First, the word "students" in specific questions was replaced with the word "recipients," just like in the Maslach Burnout Inventory Human Services Survey (Maslach et al., 1997). Secondly, the 7-point Likert scale was turned into a 5-point Likert scale like a previous Turkish-adapted version of the Maslach Burnout Inventory (Ergin, 1992). The modification in the original scale from 7 points to 5 points has also been based on literature, which suggests that a 5-point scale tends to be easily comprehensible and less complex for participants and helps them to convey their opinions, which can be used to improve the rate and quality of responses along with decreasing the 'frustration level' of participants with an increased number of items (Babakus & Mangold, 1992; Marton-Williams, 1986). Due to these changes, test-retest reliability was checked for this scale.

Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)

The WEMWBS is a 14-item, one-factor scale developed by Tennant et al. (2007) for measuring participants' mental well-being and adapted for the Turkish population by Keldal (2015). Items are rated on a 5-point Likert scale, and the Cronbach alpha coefficient is reported to be .83. A high score on this scale represents enhanced mental well-being.

Group Cohesion Scale (GCS)

The GCS is a 5-item, one-factor scale developed by Price and Mueller (1986) to measure the cohesion perceptions of group members. Alsancak (2010) conducted the Turkish adaptation study, and the Cronbach alpha coefficient was .92. Higher scores indicate a higher degree of group cohesion.

Group Atmosphere Scale (GAS)

The GAS is a 9-item, one-factor semantic differential scale developed by Fiedler (1967) to measure group members' perceptions regarding the group atmosphere. Alsancak (2010) adapted the scale for Turkish populations with six items with a Cronbach alpha coefficient of .93. Higher scores on this scale show a good group atmosphere.

Data Analysis

The data were collected and analyzed using the Statistical Package for the Social Sciences (SPSS) version 20 (IBM, 2011). Since there were a small number of participants in the intervention (n = 19) and control (n = 19) groups (n < 30), the hypothesis that data should be normally distributed (one of the essential assumptions for carrying out a parametric test) was deemed unusable (Tabachnick & Fidell, 2007). Therefore, non-parametric tests were used to analyze pre-test and post-test scores statistically. Scores were measured for each participant in the intervention and control groups, and the Mann-Whitney U (MWU) test was used to analyze between-group differences in pre-test and post-test measurement scores for the intervention and control groups. The Mann-Whitney U test was used to determine the similarity of intervention and control group scores at the beginning of the study to preclude the possibility of overlooking the significant differences between the groups, which can become a confounding variable. In addition to MWU, the Friedman test detected significant changes in the intervention group's pre-post-follow-up scores. This analysis enabled the testing of the potential effects of the intervention on the proposed intervention objectives by comparing scores from three different time points. Finally, the Wilcoxon signed-rank test was used to compare the within-group differences between the pre- and post-test scores of the control group and to perform a post hoc analysis of the intervention group's pre-post-follow-up scores. This analysis enabled us to test the potential effects of the implemented intervention on the intervention group from pre-to-follow-up tests and the lack of significant changes in the control group, as hypothesized in this study. The p-value was set to .05 for all analyses, except for the post hoc Wilcoxon signed rank test following the Friedman test. The p-value was set to .017 for the post hoc test with Bonferroni correction. Effect sizes are reported for significant effects as the r proposed by Cohen (1988) with a formula for the Wilcoxon signed-rank test and Kendall's W for the Friedman test according to the instructions for non-parametric tests (Fritz et al., 2012). Cut-off values for r effect sizes are as follows: A large effect is .5, a medium effect is .3, and a small effect is .1 (Cohen, 1988). Kendall's W effect sizes are as follows: .2 is a slight agreement, .4 is a fair agreement, .6 is a moderate agreement, and .8 is a substantial agreement (Landis & Koch, 1977).

Results

Through matched group assignment, thirty-eight participants were assigned to the intervention and control groups, nineteen participants per group. Descriptive data regarding gender, marital status, having children, education status, vocational training, vocational experience, and age are provided in Table 2. The intervention and control groups did not differ regarding socio-demographic variables except vocational training (p = .04).

Table 2. Socio-demographic data descriptives for intervention (IG) and control (CG) group participants

	IG (n = 19)	CG (n = 19)	U	p
1.Gender			152	.326
Female	13	10		
Male	6	9		
2. Marital Status			176.50	.892
Single	11	7		
Married	7	12		
Divorced	1			
3. Having children			152	.215
Yes	2	5		
No	17	14		
4. Education			155.50	.438
High school	6	2		
Associate degree	5	7		
Undergraduate degree	6	10		
Graduate degree	2			
5.Vocational training			142.50	.037*
Yes	15	19		
No	4			
6. Experience			151.50	.149
Less than 5 years	15	18		
6 to 10 years	3	1		
More than 10 years	1			
7. Age (year) **	28.32 ± 5.59	29.26 ± 3.54	142.50	.265

**Mean score ± Standard Deviation
*Significant difference
Note: Both intervention groups (Monday and Thursday) were analyzed together.

Seventeen of the nineteen participants in the intervention group completed all six sessions; sixteen of the nineteen participants completed pre-, post-, and follow-up measures; and three participants did not complete follow-up measures. According to the analysis conducted on pre, post, follow-up scores of two intervention groups (Monday and Thursday), no significant difference was found between groups in terms of psychological resilience (Pre: U = 35, p = .411; Post: U = 35.500, p = .434; Follow-up: U = 27, p = .739), emotional exhaustion (Pre: U = 44, p = .935; Post: U = 38.500, p = .594; Follow-up: U = 19.500, p = .254), depersonalization (Pre: U = 45, p = 1; Post: U = 40.500, p = .712; Follow-up: U = 18.500, p = .210), personal accomplishment (Pre: U = 37.500, p = .538; Post: U = 36, p = .460) ; Follow-up: U = 29.500, p = .956), organization based self-esteem (Pre: U = 42.500, p = .838; Post: U = 45, p = 1; Follow-up: U = 27, p = .744), mental well-being (Pre: U = 34.500, p = .390; Post: U = 34.500, p = .387; Follow-up: U = 25, p = .585), group cohesion (Pre: U = 31, p = .250; Post: U = 34.500, p = .385; Follow-up: U = 15, p = .098) and group atmosphere scores (Pre: U = 37.500, p = .539; Post: U = 41.500, p = .757; Follow-up: U = 18, p = .188). For that reason, the results of the intervention group have been presented as one group (n = 19).

There were modifications in MBI, such as changing the word “student” and the Likert scale levels. For that reason, intraclass correlation coefficient (ICC) estimates were calculated for the control group pre-test and post-test repeated measures data to see the test-retest reliability of MBI. The ICC was based on a single measurement, absolute agreement, two-way mixed-effects model. ICC estimates and p-values are presented in Table 4. In

addition to ICC estimates, Spearman Rho correlation coefficients are calculated for control group T1 (Time 1) and T2 (Time 2) MBI subscale scores and presented in Table 3.

Table 3**.** Spearman's Rho correlation coefficients of MBI subscales for control group participants at T1 (pre-test) and T2 (post-test).

	r_s	*p*
EE	.672*	.002
DP	.688*	.001
PA	.233	.359

Notes: Results with significant *p* values

Table 4. Intraclass correlation coefficient estimates for MBI items

Item No	Pre-test Post-test ICC	*p*	Item No	Pre-test Post-test ICC	*p*	Item No	Pre-test Post-test ICC	*p*
1	.627*	.001	10	.409*	.036	19	.302	.111
2	.467*	.019	11	.654*	.001	20	.063	.400
3	.504*	.011	12	.248	.155	21	-.188	.208
4	.335*	.045	13	.234	.146	22	.506*	.014
5	.515*	.006	14	-.145	.717			
6	.590*	.003	15	.082	.372			
7	-.193	.788	16	.671*	.001			
8	.512*	.009	17	-.161	.773			
9	.268	.136	18	.420*	.037			

Notes: * Results with significant *p* values

The Mann-Whitney U test between intervention and control group pre-test data was conducted to test whether groups were equivalent in terms of variables in the study. Groups were equivalent in terms of psychological resilience ($U = 160.500$, $p = .557$), emotional exhaustion ($U = 138.500$, $p = .219$), depersonalization ($U = 168.500$, $p = .725$), personal accomplishment ($U = 163$, $p = .624$), organization-based self-esteem ($U = 145.500$, $p = .304$), and mental well-being levels ($U = 151.500$, $p = .396$). On the other hand, there was a significant difference between groups in group cohesion ($U = 86.500$, $p = .006$) and group atmosphere ($U = 39$, $p = .001$) pre-test scores. The mean scores of the control group participants' pre-test group cohesion and group atmosphere were higher than the pre-test group cohesion and group atmosphere mean scores of the intervention group participants'.

The findings of the present study are as follows: The n, mean, and standard deviation values for the pre-test and post-test scores of the control group on the study measures were examined using the Wilcoxon signed-ranks test. The descriptive statistics are presented in Table 5. When we examine the results for the control group in Table 5, we find that control group participants' pre-test and post-test scores on scales of psychological resilience, emotional exhaustion, depersonalization, personal accomplishment, mental well-being, organization-based self-esteem, and group cohesion did not differ significantly. In contrast, group atmosphere scores decreased significantly ($z = 2.41$, $p = .016$, $r = .55$) from the pre-test ($Md = 28$) to the post-test ($Md = 27$).

Tablo 5. Control group median scores and Wilcoxon signed rank test results

Measures	Test	*n*	*Md*	*z*	*p*
Brief Psychological Resilience	Pre-test	19	20	1.22	.221
	Post-test	19	22		
Emotional Exhaustion	Pre-test	19	12	.197	.844
	Post-test	19	11		
Depersonalization	Pre-test	19	9	.325	.745
	Post-test	19	10		
Personal Accomplishment	Pre-test	19	9	.974	.330
	Post-test	19	8		
Organization Based Self Esteem	Pre-test	19	59	.74	.461
	Post-test	19	60		

Mental Well-being	Pre-test	19	62	.94	.348
	Post-test	19	62		
Group Cohesion	Pre-test	19	21	.89	.373
	Post-test	19	21		
Group Atmosphere	Pre-test	19	28	2.41*	.016
	Post-test	19	27		

Notes: * Results with significant *p* values

Analysis of the intervention group results (Table 6) using the Friedman test did not reveal any significant effect of intervention on emotional exhaustion. $\chi^2(2) = 1.97$, $p = .37$, depersonalization $\chi^2(2) = 4.40$, $p = .109$, personal accomplishment $\chi^2(2) = 4.38$, $p = .11$, mental well-being $\chi^2(2) = 3.55$, $p = .17$, organization-based self-esteem $\chi^2(2) = .83$, $p = .66$, and group cohesion scores $\chi^2(2) = 5.15$, $p = .08$.

Tablo 6. Intervention groups pre-post-follow up median scores and Friedman test results

	Test	*n*	*Md*	χ^2	*p*	Kendall's *W*
Brief Psychological Resilience	Pre-test	19	19	12.43*	.002	.39*
	Post-test	19	22.5			
	Follow Up	16	18			
Emotional Exhaustion	Pre-test	19	21.5	1.97	.374	.06
	Post-test	19	22.5			
	Follow Up	16	25			
Depersonalization	Pre-test	19	12	4.44	.109	.14
	Post-test	19	9.5			
	Follow Up	16	12			
Personal Accomplishment	Pre-test	19	18	4.38	.112	.14
	Post-test	19	16.5			
	Follow Up	16	16.5			
Organization Based Self Esteem	Pre-test	19	49	.83	.659	.03
	Post-test	19	61			
	Follow Up	16	60			
Mental Well-being	Pre-test	19	56	3.55	.169	.11
	Post-test	19	65			
	Follow Up	16	61			
Group Cohesion	Pre-test	19	16	5.15	.076	16
	Post-test	19	20			
	Follow Up	16	20			
Group Atmosphere	Pre-test	19	17	11.08*	.004	.35*
	Post-test	19	30			
	Follow Up	16	24.5			

Notes: * Results with significant *p* values

On the other hand, test results revealed a significant effect of the intervention on the psychological resilience and group atmosphere scores of the intervention group from pre-test to post-test and follow-up tests. According to test results, there was a significant difference between the pre-test, post-test, and follow-up scores in terms of psychological resilience, $\chi^2(2) = 12.43$, $p = .002$, Kendall's $W = .39$. A post hoc analysis with Wilcoxon signed-rank tests was conducted with a Bonferroni correction applied, resulting in a significance level set at $p < .017$. The median psychological resilience scores for the pre-test, post-test, and follow-up were 19, 23, and 18, respectively. There was no significant difference from the pre-test to the follow-up test ($Z = 1.19$, $p = .23$). However, there was a significant increase from pre-test to post-test ($Z = 2.66$, $p = .008$) and a significant decrease from post-test to follow-up test ($Z = -3.14$, $p = .002$).

There was a significant effect of the intervention on the group atmosphere scores of the intervention group $\chi^2(2) = 11.08$, $p = .004$, Kendall's $W = .35$. According to the post hoc analysis results, the median group atmosphere scores were 17, 30, and 24, respectively. There was no significant difference between post-test and follow-up scores ($Z = -1.20$, $p = .23$). On the other hand, there were significant increases from pre-test to post-test ($Z = 3.22$, $p = .001$) and pre-test to follow-up scores ($Z = 2.42$, $p = .016$).

Discussion

The present study developed and examined the effectiveness of a psychoeducational group intervention program with psychodrama warm-up techniques designed to reduce burnout and enhance mental well-being and group relations among public sector call center employees. The main aim of the study was to decrease depersonalization and emotional exhaustion while increasing personal accomplishment, organization-based self-esteem, psychological resilience, mental well-being, group atmosphere, and group cohesion scores. One of the essential findings of this study was that exposing public sector call center employees to a group intervention program had significant short-term effects on psychological resilience and long-term effects on the group atmosphere. First, we hypothesized that the implemented intervention program would effectively reduce burnout symptoms, such as emotional exhaustion and depersonalization, while enhancing personal accomplishment, another burnout component. However, this hypothesis is not supported, as no significant change in burnout scores was observed. Second, we anticipated the program would boost psychological resilience, organization-based self-esteem, mental well-being, group cohesion, and group atmosphere. This hypothesis is partially validated by increased psychological resilience and an improved group atmosphere. As anticipated, control group participants showed no significant differences.

Our primary hypothesis posited that the intervention program would reduce participants' emotional exhaustion and depersonalization while enhancing personal accomplishment. Although the results indicated decreased emotional exhaustion and depersonalization, the changes were not significant. In previous studies, intervention programs to reduce burnout were successful at reducing emotional exhaustion (Allexandre et al., 2016; Freedy & Hobfoll, 1994; Gerber et al., 2013; Günüşen & Üstün, 2010; Meesters & Waslander, 2010) and depersonalization (de Vente et al., 2008; Saganha et al., 2012). Some studies were also successful at increasing personal accomplishment (Gorter et al., 2001). The lack of significant changes in burnout scores following the intervention program, contrary to what the literature suggests, could be attributed to the limitations of the study, such as the small sample size and the lack of randomization. Another thing that needs to be monitored here could be that we did not find the test-retest reliability significant in the subscale Personal Accomplishment of the Maslach Burnout Inventory. This subscale is reverse-coded, and the test's reliability can be flawed in such subscales (Suárez Álvarez et al., 2018). Future studies that will use this scale should consider this result. Furthermore, the absence of organizational interventions during the process might be another factor contributing to the insignificant changes in burnout scores. Schaufeli and Buunk (2004) suggest that the optimal approach to combating burnout involves a combination of individual and organizational interventions. Organizational interventions, such as modifications to workload, employees' perceptions of work, and the work execution process, have been demonstrated to reduce burnout (Awa et al., 2010). However, organizations often resist organizational interventions as they necessitate systemic changes. Consequently, as in our study, most interventions are conducted individually (Schaufeli & Buunk, 2004; Schneider et al., 2013).

Inconsistent with previous studies that used group intervention programs to enhance well-being, the group intervention program for public institution call center employees did not improve the mental well-being of participants when comparing the pre-, post-, and follow-up test results (Fledderus et al., 2010; Josefsson et al., 2014; Page & Vella-Brodrick, 2013; Pots et al., 2014). This might suggest that group psychoeducational interventions using psychodrama warm-up activities cannot increase well-being comprehensively, as mental well-being is considered a combination of various elements such as positive affect, psychological functioning, and interpersonal relationships (Tennant et al., 2007). The reasons for these contradictory findings are not clear, but possible explanations could include varying levels of engagement with psychoeducational learning outcomes outside the intervention process or external events occurring in the participants' everyday lives.

Furthermore, the intervention program effectively increased participants' psychological resilience, consistent with Salehi and Shokri's (2016) study on increasing resiliency through psychodrama. However, this increase was not sustainable, according to the results of the follow-up tests. Van Hove et al. (2015) found that programs aimed at improving resilience tend to exhibit lower effect sizes, and effects may diminish over time. The pattern in the present study supports the findings of this meta-analysis. This lack of sustainable effects might be due to the non-use of learned skills over time (Vanhove et al., 2015). On the other hand, organization-based self-esteem, a form of self-efficacy, did not change significantly at the end of the intervention. This might be because organization-based self-esteem requires changes in the organizational system, or it might have already been high at the beginning of the intervention as a result of the organization's permission to join the study during work hours. These are only speculations on probable causes, and further research can be conducted to examine the effect of psychoeducational group interventions on organization-based self-esteem.

The present study utilized an intervention program in which psychodrama warm-up techniques were used as group exercises. These exercises required group members to interact and share (Brown, 2004, p. 99). As a result of the

intervention program, group atmosphere scores increased significantly among participants, implying that group members developed positive relationships. At the beginning of the study, the control group's group atmosphere scores were higher than the intervention group's. This difference suggested that participants in the intervention group had fewer positive experiences than the control group's participants. However, by the end of the intervention program, the intervention group's group atmosphere score increased, whereas the control group's score decreased. This outcome demonstrates the effectiveness of the intervention program in positively enhancing group relations.

On the other hand, according to the study results, the intervention group's group cohesion score changed marginally significantly. From an individual's perspective within a group, three structural constituents form connections: individual-individual, individual-group, and individual-leader. The intricacy of these multilevel relationships, in combination with the dynamic interaction among group members, gives rise to a complex framework regarding group cohesion (Burlingame et al., 2011). The lack of change in group cohesion scores in the intervention group might be attributed to the intricate interplay of these interpersonal relationships. The possible effect of group interaction and the number or frequency of group sessions on group cohesion (Burlingame et al., 2018) suggests that these factors may make the intervention less effective at improving group cohesion. Researchers should re-examine the methodical limitations associated with sampling, as they may have influenced this outcome.

Limitations

A larger sample size would have been more desirable for the present study. At the same time, large-scale and high-quality trials are needed to consider the group intervention primarily based on psychodrama warm-up practices for decreasing burnout in public institution call center employees as an evidence-based treatment. Further studies can be conducted to replicate these findings. It is worth mentioning that the current research was carried out with public sector call center employees from two municipalities in just one city. Therefore, the results should be cautiously generalized to other public sector call center employees across municipalities and cities. The statistical analyses used in this study are mainly non-parametric due to the lack of a normal distribution. Non-parametric tests might increase the risk of Type I error while decreasing the power of the study (Roy et al., 2013). Due to this limitation, the study results should be interpreted accordingly.

Moreover, although the intervention and control groups were similar in most of the baseline measures (seven out of nine), participants were not randomly allocated into groups. This was due to the objective of strengthening workplace relationships by grouping participants from the same organization. Additionally, dividing the intervention group into two separate groups could be a confounding variable. Despite the random allocation of members within these two groups and the absence of significant differences in pre-, post-, and follow-up results, Furthermore, studies should involve organizations to foster sustainable effects, as the follow-up results indicated a need for long-term effects, except for the group atmosphere.

Conclusion

The outcomes of this pilot study suggest that a psychoeducational group intervention program, which utilizes psychodrama warm-up techniques, can effectively improve resilience and enhance group relationships among public sector call center employees. This six-session program, combining psychoeducational content with group exercises based on psychodrama warm-up techniques, demonstrated long-term improvements in a group atmosphere and short-term enhancements in psychological resilience.

Recommendations

The results of the present study provide preliminary evidence that a suitable psychoeducational group intervention, incorporating essential psychodrama elements, can enhance certain aspects of psychological resilience and group atmosphere in public sector call center environments. However, additional modifications are necessary to develop an intervention program targeting burnout, well-being, organization-based self-esteem, and group cohesion.

Acknowledgements or Notes

The data supporting the findings of this study can be requested from the corresponding author. These data are not publicly accessible due to privacy and ethical considerations. We especially thank Julia Evecek for her invaluable support in proofreading this manuscript.

Author (s) Contribution Rate

First Author: Conceptualizing, methodology, supervision, analysis, interpretation of data, writing the original draft, and reviewing the manuscript in the publication process
Second Author: Literature review, data collection, analysis and interpretation of data, writing the original draft, reviewing the manuscript in the publication process
Third Author: Intervention design and implementation, interpretation of results, writing review of the original draft

Ethical Approval

Ethical permission (2019/22-4) was obtained from the Ibn Haldun University Ethics Committee for this research.

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International Journal of Contemporary Educational Research
Volume 11, Number 2, June 2024, Page 174-185 Article Type: Research Article

A Study of the Accountability of Policymakers and Curriculum Implementers for Curriculum Implementation in Ethiopian Primary Schools

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Abstract
This study aimed to explore the top-down or compact accountability relationship for curriculum implementation in rural public primary schools in the East Wollega zone administration, Ethiopia. An exploratory case study type and a multiple case study research design were employed. A purposeful sampling technique was used. The data were collected using semi-structured interviews and document reviews. The data were analyzed qualitatively by coding and describing patterns and themes in the raw data. The study utilized triangulation, expert reviews, and member checking to ensure internal validity and reliability. The findings of the study reveal that the compact accountability relationship between the policymakers and the curriculum implementers was loosely exercised and compromised by main determinants such as weak capacity, poor monitoring progress, and politicization of the policymakers' roles and responsibilities. This study also affirms that a compact accountability relationship was seriously operational to collect easily achievable reports, which led policymakers to be unsuccessful in communicating their clear duties and responsibilities for the curriculum implementation to hold implementers accountable as stated in the government proclamation. Hence, it can be concluded that accountability stands for responsibilities outside the classroom by missing the actual curriculum implementation. The study recommends that the regional education bureau, in collaboration with the Ethiopian Ministry of Education, establish an autonomous and independent policymakers' office that acts as an overseer and holds curriculum implementers accountable by visiting schools, pointing out mistakes, writing reports, and exercising accountability mechanisms. The study suggests that teachers and school principals ought to be held accountable for their particular duties and responsibilities instead of producing reports for higher-level commands that take them away from effectively implementing the curriculum.

Keywords: Accountability, Compact, Curriculum implementation, Primary schools

Citation
Beyessa, F. & Kenea, A. (2024). A study of the accountability of policymakers and curriculum ımplementers for curriculum ımplementation in ethiopian primary schools. *International Journal of Contemporary Educational Research, 11*(2), 174-185. https://doi.org/10.52380/ijcer.2024.11.2.563

Received	29.09.2023
Accepted	27.04.2024
Publication	12.06.2024
Peer-Review	Double anonymized - Double Blind
Plagiarism Checks	Yes - iThenticate
Conflicts of Interest	The author(s) has no conflict of interest to declare.
Complaints	ijceroffice@gmail.com
Grant Support	The author(s) acknowledge that they received no external funding in support of this research.
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Introduction

Primary education is universally accepted as the foundational level of education in all nations of the world. It provides students with a basic understanding of various subjects as well as the skills they will use throughout their lives (Rubio, 2024). In Ethiopia, the primary education (grades 1–8) curriculum is aimed at effectively addressing the needs of both society and the individual, bearing in mind the crucial issues of poverty reduction (MoE, 2009). Yet it is important to note that primary schools have been faced with a myriad of problems in implementing the curriculum. In this case, flawed education administrative procedures, a lack of a clear accountability system, politicized employment, and defective controlling mechanisms are considered the main problems for the effective implementation of the curriculum (Teferra et al., 2018). The Federal Democratic Republic of Ethiopia issued educational reforms based on policy documents entitled Education and Training Policy in 1994 that called for accountability with greater community engagement and the involvement of policymakers and curriculum implementers (teachers and school principals) in curriculum implementation (MoE, 1994, 2002) to strengthen a compact or bureaucratic accountability relationship. In the context of this study, accountability is concerned with proper behavior, and it deals with the responsibilities of individuals and organizations for their actions toward other people and agencies (Levitt et al., 2008).

The compact or bureaucratic accountability relationship is the accountability that connects policymakers to school curriculum implementers (MoE, 2002; WDR, 2004). When applied to the Ethiopian context, it is the broad relationship connecting regional policymakers of the primary education system with the school curriculum implementers, teachers, and school principals (MoE, 2002). This ensures that there is alignment between the policies set by policymakers and the actions taken by those responsible for implementing the curriculum in schools. Strengthening public primary school education for better implementation of the curriculum requires coordinating compact accountability relationships. In this case, curriculum implementers agree to implement the curriculum as intended in return for being rewarded or penalized depending on performance. Thus, they should be structurally accountable to the policymakers for performing their duties (Pritchett, 2015). This accountability structure helps to ensure that there is consistency and coherence in how the curriculum is implemented across different schools. Through this accountability relationship, policymakers and school curriculum implementers should create an environment in which all schools have the means to provide high-quality curricula for their students. Since policymakers are the developers of the curriculum framework, they should generate information about the performance of schools' curriculum implementation and apply accountability measures (rewards and sanctions) to satisfy the needs of students (MoE, 2002; Pritchett, 2015). Thus, a compact accountability relationship (top-down from the regional education bureau to the primary schools) stands for how well and how the responsibilities of curriculum implementers and the objectives of curricula are communicated to the students. Curriculum Implementation (CI) is a process of translating the effective components of official government curriculum documents (textbooks, syllabi, and teachers' guides) into classroom practices as intended (Fullan, 1999).

Policymakers have the authority to oversee, monitor, and use enforceability approaches for the implementation of the school curriculum. Enforceability comes into play when the compact also specifies the rewards (and possibly the penalties) that depend on the curriculum implementers' behaviors and actions (WDR, 2004). As an element of the vertical form of accountability, a compact accountability relationship can be linked to rewarding good behavior and punishing unacceptable behavior (Pritchett, 2015; WDR, 2004). This will lead policymakers to make sure that the curriculum is effectively implemented by using compact relations to monitor and exercise accountability measures over the curriculum implementers to hold them accountable by evaluating their performances (MoE, 2002). According to the Federal Democratic Republic of Ethiopia, if curriculum implementers fail to discharge their responsibilities, policymakers are expected to hold them accountable for improving the implementation of the curriculum, from simple disciplinary penalties (oral warning, written warning, and fines up to one month's salary) to rigorous disciplinary penalties (fines of up to three months' salary, downgrading, and dismissal) to improve the quality of curriculum implementation (Proclamation, 2002).

Even though the accountability movement has helped to make school performance more transparent (Fullan, 2000), public opinion generally considers public education to still be in crisis (Fowler, 2009) and failing to meet today's challenges in the implementation of curriculum (Bushaw & Lopez, 2010). When implementing school curricula to meet the needs of students, primary schools in Ethiopia have encountered several problems. One of the major issues with curriculum implementation is that stakeholders (such as policymakers and curriculum implementers) have limited commitment to carrying out their duties. A report on the curriculum's implementation by Areaya (2006) provides evidence to support this. One of the challenges in implementing the curriculum is the incompatibility of accountability arrangements among school stakeholders in Sub-Saharan Africa and Ethiopia in particular.

A large-scale study in Ethiopia also indicates that primary schools continue to face crises in curriculum implementation (Hoddinott et al., 2019). These crisis narratives about the lack of students' engagement in the

curriculum in primary schools have gained traction recently. Essentially, in the context of the study area, the achievement results of students who completed primary school and took the regional exam for boarding secondary schools administered by the Oromia Devolvement Association (ODA), which invites students to compute following primary school promotion in the east Wollega Zone, are shown in Table 1.

Table 1. Number of students who completed grade 8, sat for the regional exam and were promoted to boarding secondary school in East Wollega Zone

Academic Years	Number of students who sat for the exam	Number of students who prompted
2020	98	4
2019	121	7
2018	11	3
2017	630	15
2016	167	6
Total	1027	35

The data for Table 1 comes from the regional exam results filed by students for the 2016–2020 academic years in the ODA office's East Wollega zone (unpublished documents).

A compact accountability relationship between policymakers and implementers can be established for effective curriculum implementation and, ultimately, better educational outcomes for students. Nevertheless, as can be seen from Table 1, out of a total of 1027 students who sat for the national exam for consecutive five years, only 35 (3.41%) students were promoted to boarding secondary schools. This directly shows that curriculum implementation in primary schools in the East Wollega Zone had a serious gap in exercising compact accountability relationships, most probably between policymakers and school curriculum implementers. We argued that weak monitoring functions between policymakers and implementers may cause the continuous failure of students in regional exams. Nonetheless, compact accountability interventions for curriculum implementation can improve learning outcomes by fostering a strong relationship between curriculum policymakers and school implementers (Komba, 2017; Pritchett, 2015). This was found to be an unsolved problem from time to time, which motivated us to conduct this study. Therefore, this study aims to explore the compact accountability relationship between policymakers and curriculum implementers for curriculum implementation. Specifically, the study targeted:

1. Determine how to hold curriculum implementers accountable through a close accountability connection with policymakers.
2. Explore the nature of the compact accountability relationship for which policymakers primarily hold curriculum implementers accountable.

Literature Review

In the 21st century, the widespread interest in accountability is reflected in research, where the use of the term increased tenfold in studies published between 1965 and 2000 (Dubnick, 2014; Dubnick & Frederickson, 2014). At the same time, research-driven fuels are of paramount importance to strengthening accountability in the education system, and they are not a recent phenomenon in developed countries. Taking that into consideration, the development among education researchers on the implementation of accountability for school effectiveness and improvement has demonstrated that schools and teachers make a difference. It was argued that the development and implementation of strong accountability systems have been one powerful, perhaps the most powerful, trend in education policy in the UK, USA, and many other countries, including Holland, Australia, Canada, Sweden, and Russia (Barber, 2005). To develop comprehensive national monitoring and evaluation systems, systems may need to generate sound evidence for policy formulation and the management of education systems, as well as ensure accountability (Forum, 2015). In general, according to Chiang (2009), accountability policies and relationships have a significant effect on the pedagogical and curricular decisions and practices that take place in schools.

The literature review of this study is mainly focused on the 2004 World Development Report's accountability relationship, which explains the compact accountability relationships between policymakers and curriculum implementers (WDR, 2004). This is because the report builds the structural and practical accountability relationships of top-down approaches between policymakers and the implementers of the curriculum for using resources and enforcements to implement the curriculum effectively. Moreover, it proposes a key conceptual

construct of relationships of accountability and a particular conceptual educational structure of school curriculum implementers and regional policymakers (MoE, 2002; Pritchett, 2015; WDR, 2003, 2004). Indeed, in the education system, curriculum implementers do not work in isolation from government policymakers' decisions. Arguably, this accountability relationship is the most influential and advanced, and it emphasizes the importance of public school curriculum implementation responding to the demands of local curriculum users, and advocating for greater control and accountability (Pritchett, 2015; WDR, 2004). Although the relationship has four accountability relationships: voice, compact, power, and management, this study primarily focused on compact, which includes policymakers who have oversight authority over curriculum implementers through compact accountability relationships. Policymakers provide continuous professional development opportunities for implementers to enhance their knowledge and skills related to curriculum implementation. This can include workshops, training programs, conferences, or online resources. In Ethiopia, policymakers have the right to carry out the majority of educational activities, including curriculum implementation (MoE, 2002). Due to this reason, we used compact accountability relationships between policymakers and curriculum implementers. Accountability relationships can be verified through information (formal reporting, monitoring, assessment, and evaluation). Thus, policymakers anticipated that a substantial and strong monitoring function would be used to generate information about the performance of curriculum implementers (MoE, 2002; WDR, 2004).

This accountability relationship, which highlights the significance of public school curriculum implementation and advocacy for increased control and accountability (MoE, 2002; WDR, 2004), is arguably the most influential and advanced. On the other side, there is a continuum of accountability that runs from strong to weak. A strong, compact accountability relationship would have external actors with significant influence, transparent, high-quality communications, and reasonable judgment. A weak, compact accountability relationship, on the other hand, would result in poor communication, poor outside influence, frequent ambiguity, and bad decision-making (O'Loughlin, 1990). However, according to Gonzalez and Firestone (2013), subordinate employees are accountable for adhering to work rules and directives, with rules determining relationships and accounting for subordinates or routine responsibilities. Compliance with rules, supervision, and rewards or punishment are key concepts in accountability measures.

However, political or technical procedures that shift the school's focus away from the implementation of the curriculum as planned may be the reason why the compact accountability relationship is not working (WDR, 2004, 2018). A compact accountability relationship is unclear and frequently fails in various countries' education systems (Di Gropello, 2004; Komba, 2017). There is no compact in failed or failing nations since the state's level of control is so low (such states are referred to as low-income countries under stress). This occurs when nations are engulfed in protracted civil wars or when sizable portions of the nation are out of the government's control (WDR, 2018). The cooperative relationship between state policymakers and public school curriculum implementers is frequently incredibly weak when it comes to implementing curricula, even in working states (WDR, 2004). According to Di Gropello (2004) and Pritchett (2015), successful accountability requires clear goals, effective monitoring mechanisms, enforcement mechanisms, adequate resources, and stakeholder engagement. If any of these elements were lacking in the compact accountability framework, it likely failed to achieve its intended outcomes.

The assumption is that, for example, strengthening compact accountability relationships in primary schools leads to close relationships between policymakers and implementers to hold curriculum implementers accountable for better implementation of curriculum (Komba, 2017; MoE, 2002; WDR, 2004). This accountability relationship is important in the primary education system because it helps to ensure students' engagement in curricula by holding curriculum implementers accountable for their performance. As a result, this relationship has significant ramifications for its potential to be an efficient remedy for improved primary school classroom curriculum execution through a close and compact accountability relationship. This accountability relationship consequently has important implications for its potential to initiate and force the curriculum implementers in the right direction through ongoing and close oversight.

Methods

Research Design and Approaches

In this study, a multiple case study design was employed to provide in-depth insight into how the compact accountability relationship has been exercised for better curriculum implementation and for what this relationship is primarily operational to hold curriculum implementers accountable (Yin, 2003). It is important to note that case study techniques are suitable because of their ability to accurately represent the views of respondents under investigation for effective reconstruction (Merriam & Tisdell, 2015; Yin, 2011). According to various scholars, interpretivists use qualitative methods to understand social phenomena directly from the perspectives of social

actors (Miles et al., 2014; Punch, 2013). Thus, a qualitative research approach that follows constructionism was adopted for this research because we needed to view the accountability of policymakers and curriculum implementers for curriculum implementation in primary school systems as existing in the minds of education stakeholders within the system and as best understood when interpreted from their perspective.

Samples and Sampling Techniques

According to Martella et al. (2013), purposive sampling is the deliberate selection of particular people, events, or settings for the significant information they provide. Hence, it was used in the study to choose the study locations and the participants. Among the 19 zones of the Oromia regional state, the East Wollega zone was purposefully selected because it consistently underperforms in promoting eighth-grade students to Oromia Development Association (ODA) boarding secondary schools, as indicated in the statement of the problem. According to the data from the zone education office, the zone has 644 primary schools. At the time of data collection, more than 350 primary schools were closed due to internal political conflict in the zone. Because of the instability and war-related displacement in the area, three primary schools from three relatively peaceful districts within the zone were selected as the research sites for this case study. Three policymakers were selected from the regional education bureau for their expertise, educational structural position, and top-down accountability relationship with curriculum implementers, teachers, and school principals. School principals act as teachers and principals because they have teaching loads. Three school principals, one from each respective school, were selected based on their positions. Six teachers, two from each school, were chosen based on their teaching experience. This is because, since 2002, primary schools have been managed by the same guideline. Choosing teachers with long experience—more than 20 years—is essential to getting reasonable information.

Data Collection Instruments

The instruments used to collect data in this study were interviews and document reviews. These data sources allowed for triangulation through substantive and in-depth data (Cohen et al., 2007) and helped to enhance data credibility (Patton, 1990; Yin, 2003).

Semi-structured interviews

Interview questions serve as the major data collection tool for this study. Individual interviews provide us with access to detailed, individualized information. Because of this, we developed and employed a semi-structured interview approach with respondents for this study as key information. It was assumed that these interviewees would provide authentic information related to the study's subject. All interviewees were available and volunteered for a tape recorder, which led us to productive methods of data collection. The interviews ranged from 50 to 65 minutes. All interviews were conducted in "Afaan Oromoo." This is due to it being the medium of instruction in primary schools and the mother tongue of the respondents. Then, all recorded interviews were transcribed into the English language to allow for analysis. Nine people in total participated in the interview process: six teachers, three policymakers, and three principals of schools.

Documents

Document reviews from sampled schools' and the zone ODA office's annual reports from the 2016–2020 academic years, education guidelines, and the Ethiopian government's education proclamation were used to gather the necessary information to triangulate with the interview evidence. This is because there are education policies and school management guidelines that indicate the duties and responsibilities of education for stakeholders, with particular reference to the implementation of the school curriculum. It is also of paramount importance to compare and contrast Ethiopian education policies and guidelines with the current views and practices of the global educational accountability system.

Method of Data Analysis

After the data presentation was finished, we moved on to thematic data analysis. Thematic analysis is a qualitative research method that can be widely used across a range of epistemologies and research questions in this study. It is the way to find, examine, group, describe, and present themes that are present in a data set (Braun & Clarke, 2006). For the sake of data analysis, we used color coding. Teachers were coded as Teacher One (T1) and T6 for data analysis, school principals as School Principal One (SP1), SP2, and SP3, and policymakers as Policymakers One (PM1), PM2, and PM3. The data were analyzed manually by discovering repeated patterns in the data set.

Results

In a top-down accountability relationship for school curriculum implementation, the responsibility for ensuring that the curriculum is effectively implemented lies with the regional policymakers within the primary education system. They should monitor progress toward meeting curriculum implementation goals by conducting regular evaluations to assess the effectiveness of the curriculum being implemented. Under this sub-section, the accountability of policymakers and curriculum implementation are expected to address their professional responsibilities. Nevertheless, the major themes identified during the interview process were student-related and school facility reports, politicized responsibility, accountability enforcement, and measures. By respecting their obligations and responsibilities outlined in the proclamation and education management guidelines, policymakers must also assess how well the curriculum is being implemented and take corrective action (MoE, 2002).

As explained by policymakers, their roles and ways of using enforcement mechanisms to hold curriculum implementers accountable for curriculum implementation are essentially devoted to the distribution of students' books. In this regard, all the policymakers (PM1, PM2, and PM3) explained a similar argument:

> "To provide for the school, policymakers obtain textbooks for the pupils, teacher's manuals, and other instructional resources from the zone education offices. Policymakers also force them to provide such books on schedule. Policymakers also advise individuals to use those books responsibly until the new curriculum is adopted. Policymakers are also eager to gather information on textbook requirements for schools, which must then be submitted to the appropriate authorities. This is the initial mechanism to hold schools accountable."

The concern about the compact accountability relationship is highly focused on collecting school test scores. Ethiopian primary school students have no trend to participate in international tests. Therefore, tests and exams are not standardized and are prepared by school teachers. School curriculum implementers were forced to be ranked by promotion rate and the improved school-wide students' average scores. Hence, policymakers highlighted that:

> *"Policymakers collect the data from schools on students' results, and individual schools are held accountable through the mechanism for students' test scores. Students did not attend international assessment practices. Based on the direction given by the ministry of education, zone education office, and regional education bureau,* policymakers *put pressure on schools to improve students' test results by at least 10% from the previous year*." (PM1, PM2, and PM3)

It is important to note that the compact accountability relationship is focused on students' enrollment and dropout rates. The compact accountability relationship is easy because the targets are numerical. As explained by the policymakers,

> *"The Zone Education Office has given an enrollment plan through formal or official letters, which show the number of students to be enrolled. Policymakers force schools to reach the given plan. Policymakers divide the target number of students in the school to teach at the maximum level. Schools should give priority to reaching the expected number of students to reach the plan. Policymakers are not concerned with which schools effectively implement the curriculum. Policymakers often set several enrollment limits for schools. Schools should be appreciated for their overcrowded number of students. Students' dropout rate is also another mechanism to hold schools accountable as one of the school ranking criteria." (PM1, PM2, and PM3)*

Another expert emphasized that:

> "Failing schools are relatively unranked schools that failed to demonstrate yearly progress enrollment rate data by grade level and by gender and were loosely subjected to sanctions. These accountability sanctions are rare and most probably change school principals from their positions to the teaching profession." (PM2)

In addition, teachers' relationships with policymakers for curriculum implementation were seen to be weak and inadequate. Therefore, one participant understood that:

> *"Although it is not good to make hasty generalizations about policymakers, they are afraid to enter the classroom to evaluate teachers and give feedback about teachers' performance. They have no interest in playing formal evaluation roles as policymakers for the implementation of the curriculum. There is no way to make teachers accountable for better implementation of the curriculum. Even their language does not smell of educational expertise, and they come to school for the sake of their presence. They are reluctant agents. Teachers are not lucky enough to expect professional support from such policymakers."* (T5)

Another teacher also explained that:

> *"I report individual test scores to students and parents. However, for the general public, policymakers score and make school rankings on a school-by-school basis using school-wide averages. No one reports*

> *that they can tell which teachers are effective and which are ineffective at implementing the curriculum. No accountability measures differentiate individual teachers' performances for the implementation of the curriculum."* (T1)

When policymakers visit schools, they are considerably more worried about ranking issues based on student results than they are about how students will be engaged in the curriculum about this compact accountability relationship. Participants explained that as a result of:

> *"Teachers do not have a meeting with policymakers on issues related to the implementation of curriculum and on how to use it effectively. Rather, they enforce schools and teachers by saying that all students should be promoted. Schools are motivated to adjust students' results to fulfill the needs of the regional education bureau and MoE.* Policymakers put pressure on *schools to adjust the students' marks to be appreciated by their political bosses and to get international funds. They do not like to hear about students being detained. They are confusing us by not implementing the curriculum effectively."* (T3 andT4)

Policymakers commonly exercise their compact relationship with schools' facilities as ranking criteria rather than the translation of the written curriculum into classroom practices. Several participants asserted that:

> "Schools are extensively evaluated and held accountable for school facilities such as sports fields, clean water, latrines for boys and girls, classrooms, and students' tables and desks. Policymakers do not have concerns about putting any pressure on curriculum implementers about what is going on in the classrooms among students, teachers, and instructional materials." (T2, T4, and T6)

Although policymakers are positioned at the regional education bureau, teachers explicitly suspect their expertise because they come to the school with an opinion that focuses on varying degrees of political friction. The political nomination is the most powerful because it directs a compact accountability relationship between the policymakers and the curriculum implementers to focus on political issues rather than the implementation of the curriculum. One participant emphasized that:

> "Policymakers *are evaluating the implementation of the school curriculum, and they have no practice observing how students learn and how teachers teach. Policymakers are teachers who do not teach their students properly. They were pulled into the office. I know that they are positioned as policymakers based on important criteria: political membership in the ruling party, and they do have relatives who are top politicians and can be nominated politically. Indeed, there is no transparent and merit-based competition to select those policymakers. I see that they usually come to school with a political agenda*." (T1)

In this regard, other respondents reported that:

> "Policymakers come to school to collect information about the political views of the school community in general and teachers' and students' views in particular... who do not support the ruling party and who show resistance to this party... And they focused on collecting the hidden political agendas, and they do have many structural connections to the community beyond the school. They are often called collectors of data related to students. They are far from curriculum knowledge and its implementation. So, CI is commonly left to the teacher alone." (T1 and T2)

Another compact relationship is just to trust the top-down commands that cannot be escaped to do so. These commands are specified as emerging informal activities of school functions, with various types of checklists from the regional education bureau and the schools. All school principals and one teacher shared similar insights about informal school activities embedded in classroom practices by saying:

> *"Teachers and school principals have plans to implement the curriculum. Policymakers forced us to participate in many informal activities from central politicians or curriculum developers through the telephone, such as discussions about student textbook ratios, student-to-chair ratios, student-to-classroom ratios, and others that disrupt our duties and responsibilities. Policymakers exercise compact relationship accountability to enforce curriculum implementers for additional informal activities beyond the implementation of the curriculum. Of course, politicians have goals other than implementing the curriculum effectively*." (SP1, SP2, SP3, and T3)

Several school principals (SP1, SP2, and SP3) worried about the future generation because policymakers have always used strong, compact accountability relationships for political concerns, and they highlighted that:

> "School principals see that CI is politicized and students are not effectively engaged in the school curriculum. School principals and teachers are running with unnecessary routine activities. School

principals hope this notion has to be changed in how to implement the curriculum effectively. In the 21st century, CI has a priority agenda in the schools, and the practice is technology-integrated, yet the Ethiopian curriculum is simply implemented from the students' books. Schools are failing to transmit societal core values to the next generation. Policymakers force school principals to lead schools out of principals' leadership roles for implementing curriculum, and they also mislead principals and teachers to focus on schooling (general education services, whether textbook distributions, teachers, school facilities, student-related reports, construction, etc.) that don't strengthen the interactions and enforcements for meaningful curriculum implementation."

Discussions

A top-down accountability relationship for school curriculum implementation ensures that there is alignment between educational goals in the primary education system, which initiates regional policymakers to monitor the progress towards those goals (MoE, 2002). By holding curriculum implementers accountable for implementing the curriculum effectively, this approach aims to ensure that all students have access to high-quality curriculum implementation in East Wollega primary schools. In the context of this study, the Ethiopian Federal Democratic Republic Proclamation addresses the fact that policymakers are expected to hold curriculum implementers accountable for improving the implementation of the curriculum through a range of rigorous disciplinary measures, including downgrading, dismissal, and fines of up to three months' salary (Proclamation, 2002). Similarly, in developed countries like the USA, schools, and curriculum implementers are held accountable for establishing standards and evaluating student performance. Failing schools face sanctions ranging from minor tutoring to major reforms, staff and administration reforms, school closures, and student transfers (Itkonen & Jahnukainen, 2007). However, the findings of the study generally demonstrate that compact accountability failures with meager accountability measures were observed to hold curriculum implementers accountable, as stated in the proclamation. The finding suggests that policymakers' roles had nothing to do with accountability measures, and curriculum implementers did not encounter any intervention or sanction resulting in shallow practices of compact accountability relationships to improve the implementation of the curriculum.

According to the Ethiopian school management guideline, curriculum implementers are accountable to policymakers for the performance related to the activities of the curriculum implementation (MoE, 2002). Hence, investigating effective approaches (monitoring and evaluation) to classroom curriculum implementation is one technique to improve the compact accountability relationship between policymakers and curriculum implementers for continuous improvement of curriculum implementation. Nevertheless, the findings of this study disclose that policymakers exercised their authority through compact accountability relationships to hold curriculum implementers accountable for collecting informal reports (e.g., on-time book distribution, improving students' test scores by a certain percentage from the previous year, improving students' enrollment rate, reducing students' dropout rate, improving students' promotion by 100%, keeping school conducive, and the like) to get rank and funding from foreign donors rather than for the implementation of the curriculum.

Politicized duties and responsibilities from policymakers caused them to practice their compact accountability relationship with the school curriculum implementers. Policymakers experienced a compact accountability relationship with the schools' curriculum implementers to address the hidden political agenda of the ruling party by violating their professional responsibilities. Likewise, according to WDR (2018), political challenges compound technical ones, resulting in policymakers having different interests, again beyond the implementation of classroom curriculum; they may simply try to protect their positions. However, the study's results indicate that political nomination had the most power to direct the compact accountability relationship between the policymakers and the curriculum implementers to focus on politically attractive reports and observable school facilities to satisfy the needs of their boss rather than focusing on classroom curriculum implementation. Monitoring the classroom and holding curriculum implementers accountable for classroom practices like lesson plans, content delivery, instructional arrangements, and evaluation procedures were missed. A compact accountability relationship is the right driver for adequate implementation of the school curriculum. Yet, this study suggests that policymakers are not fulfilling their professional roles and responsibilities in holding school curriculum implementers accountable for what is going on in the classroom.

Conclusions

Top-down or compact accountability relationships help to create a shared understanding of expectations and responsibilities between policymakers and curriculum implementers, ultimately leading to more successful implementation of school curricula. However, the findings of the study show that policymakers exercised weak, compact accountability mechanisms according to the Federal Democratic Republic of Ethiopia's proclamation to hold curriculum implementers accountable for better implementation of school curricula. This study also suggests that policymakers are highly interested in putting an enforcement or political compact in place through oral and

telephone means for the improvement of school-wide average students' test scores, enrollments, and school construction, which are easily reported as fundamental variables that gear curriculum implementers to give little emphasis to implementing curriculum. It was also found that some of these reports through this accountability relationship are aimed at forcing curriculum implementers towards too much administrative work and preparing politically attractive reports that divert them from their responsibility in classroom practices. Moreover, the study significantly observed compact accountability relationship failures, in which regional education bureau policymakers fail to communicate clear responsibilities for adequate implementation of the primary school curriculum and fail to enforce clear responsibilities.

As disclosed through the findings, it can be concluded that the compact accountability relationship of politically nominated policymakers with politicized and expertise roles and responsibilities to observe and collect the political views of curriculum implementers and students rather than the implementation of the curriculum. These findings were original, and the fact that policymakers were working with violated professional responsibilities that had led the curriculum implementers to place minimal importance on implementing the curriculum as planned. These findings provide valuable insight into the literature on the accountability relationship between policymakers and curriculum implementers that can inform the revitalization of policies and practices for the betterment of curriculum implementation.

It is obvious that if the head has a problem, the legs could have difficulty functioning correctly. If the policymakers are not executing their responsibilities successfully, producing simply a lovely report to appease the higher authority, if it influences the role of the school curriculum implementers, the curriculum cannot be implemented properly. Therefore, policymakers should respect their duties and responsibilities to ensure that schools' curriculum implementers effectively put the school curricula into classroom practices. From the existing accountability relationship, the study found that curriculum implementers were more likely to create reports of routine activities than the classroom implementation of the curriculum. Hence, the government should create an autonomous and self-governing policymakers' office that strengthens performance in the compact accountability relationships to hold curriculum implementers accountable by continuously visiting school curriculum implementers. It is recommended that the government design a contractual form of compact accountability policies that drive both policymakers and curriculum implementers to discharge their duties to improve the implementation of classroom curricula. Finally, curriculum implementation is not the role of teachers and school principals alone; therefore, policymakers and curriculum implementers must coherently work hand in hand on common curriculum goals to implement the curriculum function. Further exploration of the case study with reliable reasoning is advised on why compact accountability was less operational in line with the Ethiopian government proclamation and education management guidelines for making the implementation of the curriculum effective.

Recommendations

In 21st-century education reform, many countries have emphasized a compact accountability relationship for curriculum implementation. Hence, there should be a clear and working system of compact accountability relationships that involve policymakers and curriculum implementers to have a shared vision and goals to improve the implementation of the curriculum. The local regional education bureau, in collaboration with the Ethiopian government's Ministry of Education, should design a new contractually compact accountability policy that helps drive implementers to the actual implementation of primary school curricula. The study further recommends that regional policymakers should make their compact accountability free from political and frictional roles with school implementers, and they should establish mechanisms for monitoring and evaluating the implementation of the curriculum. By establishing a compact accountability relationship based on comprehensive relationship accountability principles; policymakers should work closely with curriculum implementers to ensure that school curricula are effectively translated into practice for the benefit of students' engagement in the curricula. Based on the school guidelines, the study recommends that curriculum implementers should primarily be accountable to policymakers for implementing the school curriculum rather than preparing superfluous and observable numerical reports.

Acknowledgments or Notes

Since this study is part of the dissertation, we thank the sample respondents for their active cooperation with the authors during the data collection. We also appreciate Addis Ababa University for providing financial support for this study.

Author (s) Contribution Rate

Feyera Beyessa: Crafting, Investigation, Formal analysis, Writing the original draft, Reviewing the reviewers' comments, and editing the final draft.
Ambissa Kenea: Supervision, Methodology, Reviewing and editing.

Ethical Approval

Since this study is part of my dissertation, it was conducted with the permission of the Institutional Review Board of the College of Education and Behavioral Studies (CEBS), Addis Ababa University with protocol number: CEBS_C & I_006/2024 dated May 20, 2024.

Disclosure Statement

No potential conflict of interest was reported by the author(s).

Declarations Competing for Interests

The author declares that he has no competing interests concerning the research.

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International Journal of Contemporary Educational Research

Volume 11, Number 2, June 2024, Page 186-203 Article Type: Research Article

Metavethics in Higher Education Institutions: Is the Metaverse the Second Forbidden Fruit of Humanity?

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Abstract
The metaverse which is considered as the digital big bang of humanity and the next evolution of the internet is anticipated to offer a living environment for civilization 5.0 and beyond in various domains including education. Each novice technology that enters our daily lives generates also fear, anxiety, and problems as well as hope, benefit, and attraction. The purpose of this research is to investigate what ethical problems the metaverse may cause in higher education institutions and how healthy metaverse universities can be created within the framework of ethics. Interpretative phenomenological research design was employed in the study and data was collected from the field experts and lecturers in higher education. The study indicated thirteen VR/AR/XR experts' and lecturers' visions on the metaverse-based ethical issues and practical implications that could be applied within the scope of five thematic nodes comprising metaverse awareness, security and data, safety and wellness, social equality and diversity, and accessibility. It is expected that the study will contribute to the design of a healthy and good metaverse in the future of higher education institutions pursuant to ethical values.

Keywords: Metavethics, Metaverse, Ethics, Higher Education, Metaversity

Citation
Gündüz, N. & Sincar, M. (2024). Metavethics in higher education institutions: Is the metaverse the second forbidden fruit of humanity?. *International Journal of Contemporary Educational Research, 11*(2), 186-203. https://doi.org/10.52380/ijcer.2024.11.2.578

Received	24.10.2023
Accepted	27.04.2024
Publication	15.06.2024
Peer-Review	Double anonymized - Double Blind
Ethical Statement	This article is derived from the dissertation thesis entitled “The Digital Ethics Problems That Metaverse Universes Would Create in Higher Education Institutions.”, supervised by Prof. Dr. Mehmet Sincar (Ph.D Dissertation, Gaziantep University, Gaziantep/Turkey, 2024)
Plagiarism Checks	Yes - iThenticate
Conflicts of Interest	The author(s) has no conflict of interest to declare.
Complaints	ijceroffice@gmail.com
Grant Support	The author(s) acknowledge that they received no external funding in support of this research.
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'We used to walk through a dream with our eyes open; we were merely a ghost of a lost age.'

Franz Kafka

'Virtual reality is like dreaming with your eyes open.'

Brennan Spiegel

Introduction

The idea of the metaverse, which expresses a virtual reality space where one can interact with other users through avatars in real time in an environment created with computer technologies, has gained great attention in recent years in parallel with the huge advances in Web 3.0 technologies, the new generation of the of the internet, and artificial intelligence. According to the 2020-2021 report of the Tsinghua University New Media Research Centre (2021), the year 2020 has been considered a turning point in humanity's revolution in virtual universes, and a number of variables, including global epidemics, a rapidly evolving digital economy, groundbreaking technological advancements, the search for secondary life, and rapid and mass migration to online life, have contributed to this threshold, pushing human society over this line. The year 2021, in which many global technology companies made large-scale investments in the metaverse, following Zuckerberg, the founder of the world's largest social networking site, changing the name of his company to Meta, is considered the metaverse year (Li, Wei, & Xu, 2022; Yu & Yu, 2023; Li, 2022). Zuckerberg believes that humanity will eventually leave physical reality behind and migrate to the virtual universes that they created and managed, even taking it one step further and suggesting that a period will come when immersive meta-universes become the primary way humans live and spend their time (Palli, 2022). Similarly, Subin, the founder of the Future Today Institute, predicted that the majority of people will spend most of their waking hours in the metaverse in the 2030s (Edwards, 2022). According to the Metaverse Insider 2023 report, the metaverse market is expected to reach 6 trillion dollars by 2030 (Wazarat, 2023). The metaverse, seen as 'the digital big bang' of cyberspace (Lee et al., 2021, p. 1), has the reformist power to lead a digital transformation in all areas of the current physical world.

As the famous Hugo award-winning science fiction writer Liu (2015) stated, there are two paths before humankind: one out, towards the sea of stars, and the other inward, into virtual universes. Like the first exploration vehicles sent into space, humanity experiences both excitement and curiosity, as well as the unknown and fear of taking their first steps in the metaverse universe. As each new technology enters our living spaces, it creates hope, benefit, and attraction, as well as fear, anxiety, and problems in societies. Moor (1985), considered to be the forefather of the field of computer ethics, argued that while new technologies offer a tantalizing network of new possibilities and opportunities, they actually drag us into previously unexplored, uninhabited lands, bringing with them new questions and problems, and thus new ethical problems that did not exist before. The tantalizing possibilities offered by the technology of virtual reality universes in the field of education have similarly enormous potential. But good and evil, the demon and the sacred, always come in a mixed package (Johnson & Miller, 2008). New technologies create new possibilities; new possibilities create new questions and problems; and new problems create new solutions. Considering the fact that Web 3.0 and blockchain technology are much more advanced and complex compared to Web 2.0 technology, it will be understood that both the opportunities it offers and the possible ethical problems that will arise might be more than past online educational experiences.

Although some international studies in the context of the metaverse have appeared in the literature in recent years, most of these studies focus on the classroom applications of metaverses and games and do not provide answers to the ethical problems and solutions that administrators and teachers may face as a result of this new order. Information technology-based ethical problems are increasing at a rate higher than the production rate of technologies; the strategies that are thought to be valid for the solution of these problems are incomplete, and the way out of the "conceptual mud" that emerges for this reason is digital ethics-based scientific studies centered on new technologies (Moor, 2001). New technologies create new individuals, institutions, and societies with different codes and create the need for new perspectives and new management approaches. On the other hand, humanity is making an effort to organize the technology of tomorrow with the procedures and principles of yesterday (Hoven, 2017).

There are various future scenarios about how and in what direction a digitalized society will transform educational organizations with the new Web 3.0-based, blockchain-based technology. Metaverse schools with meta-universes,

cyber schools, simulation classrooms, and avatarized representations can be counted among these predicted near-future scenarios. Instead of focusing only on the educational applications of metaverse universes, their contributions to the field, and the opportunities and conveniences they will offer from a utopian perspective, it is critical to act with the awareness that the devil and the angel are offered in the same package and to investigate possible digital dystopia scenarios in order to protect the digital safety and health of students, to see the clear picture of the ethical problems that educational practitioners and administrators of universities will face, and to take the necessary measures in the new digital formation process. It is surely beyond doubt that opening a discussion on the ethical norms and codes of this novice digital educational system at higher education will assist in ensuring that our universities are not blindsided by this process.

Metavethics in Higher Education

Higher education institutions are the zones where high technology is both produced and consumed on a large scale. At this point, universities are the 'center of the digital age' and today's university students are 'digital natives' born into computer technology (Wankel & Wankel, 2012, p. 1). While novel technologies make the young generation more creative, entrepreneurial, and freer, this freedom they feel can also make them more callous and insensitive, as well as more prone to unethical behaviors. With evolving technologies, various unethical actions, such as plagiarism (Gilmore, 2008), cyberbullying, cheating (Wankel & Wankel, 2012), identity crises (Yee & Bailenson, 2007), data theft (Li et al., 2022), and cyber identity theft (McNally, 2012), have been observed at universities. Wankel and Wankel (2012) put out that, as a result of cyberbullying, which is common in universities, there are now too many suicide attempts among young people.

It is inevitable that ethical behavior violations will take place at higher education institutions in the metaverse universe if no regulations are made. Web 3.0 technology, on which the metaverse is based, will provide these platforms with data flow in quality and quantity that has not been seen in previous technologies such as biometric data and behavioral data (Zallio & Clarkson, 2023). Li et al. (2022) asserted that educational metaverse platforms, including artificial intelligence, and their core technology are completely based on big data, and this will bring serious privacy problems, emphasizing that during the design process of these platforms, a lot of private data is extracted from real people and physical environments through data mining and analysis. The authors underlined that the people who built instructional metaverse platforms are also software experts working for some companies, and that even though the platforms are designed for educational institutions, countless personal data and private information will be in the hands of these companies. From this perspective, privacy and personal data are critical issues that need to be considered for higher education institutions in the age of the metaverse.

Avatars are another issue that may cause a crisis in terms of higher education in the metaverse, which has to be discussed. With the advancement of technology, avatars will be able to travel seamlessly between platforms, and it will become inevitable for everyone to have at least one avatar (Moor, 2001). Avatars are a subject that may jeopardize the professional and formal process in higher education and may require regulations. Whether the users behind the avatars are really the persons they claim to be, whether the avatars correspond to their real physical appearances, the existence of half-human and half-animal avatars, and even the clothes that avatars wear may cause problems and frivolity in higher education. For instance, the fact that individuals prefer avatars that are far from their physical reality will both manipulate their interlocutors and cause the users themselves to be in an identity confusion (Arıcak, 2015), or the fact that people prefer clothes that offend political, religious, or ethnical values for avatars may drag the higher education institution into another crisis. In addition to all these, the real crisis of humanity will perhaps begin with the fact that young people can become the person they want to be in their dreams via the avatars they create and lose their sense of reality completely, getting lost in virtual universes and disconnecting from the physical world.

Considering all possible problems, there are two scenarios in front of higher education institutions. The first is to exclude universities from these platforms, ignoring all the positive, innovative, inclusive, transformative, and immensely facilitating possibilities that the metaverse universes offer. According to Brunnbauer (2022), this scenario is the least realistic because our daily lives are already heavily covered by internet technologies. To the author, if individuals or institutions try to stay out of this system, it actually means that they are excluded from society, the economy, and intellectuality. Just as today, all public and private institutions such as banks, government institutions, educational organizations, shops, and entertainment centers have moved to the internet environment of Web 2.0 technology, and those who fail to do this are described as being behind the times. The same situation will also be in question for Web 3.0 technology and the metaverse in the near future. For this reason,

it is neither a realistic nor a possible scenario for higher education institutions, which are actually the locomotive of society, to stay out of the new generation internet formation.

The only option for higher education to successfully navigate the metaverse-based crisis is to analyze the situation well and develop strategies, regulations, and guidelines for metaverse platforms. Moor (2001, p. 1) has pointed out that 'policy gaps' occur with every new technology that enters our lives, and we need good policies, new regulations, and new principles supported by reasonable justifications. In other words, every comprehensive innovation and transformation brought about by computing technology creates its own new field of applied ethics and ethical debates (Aslan, 2022).

In a similar route, ethical debates on the metaverse were discarded following the naming of Stephenson in 1992 and the birth of platforms such as Second Life and Minecraft, which were the first metaverse universes as of the 2000s, and many researchers agreed on the destructions that a metaverse age without regulations, principles, values, and ethical standards would cause on humanity (Bibri & Allam, 2022; Spence, 2008; Brunnbauer, 2022; Dayarathna, 2022; Fernandez & Hui, 2022; Kaddoura & Al Husseiny, 2023; Kshetri, 2022; Li et al., 2022; Zallio & Clarkson, 2022; 2023). As an outcome of these discussions, two researchers from Cambridge University, Zallio and Clarkson (2022), conducted a pioneering study in which they determined the ethical codes and principles of the metaverse based on the results of the interviews they conducted with leading people working in high-tech companies such as Meta, Google, HTC, and Panasonic and specialized in the basic technology fields on which the metaverse is reposed, including AR, VR, and MR. Following their studies, they proposed the concept of 'metavethics', which emerged from the words 'metaverse' and 'ethics' and was shaped on designing a healthy and responsible metaverse within the framework of moral values, as a novice and specialized, interdisciplinary field of study (Zallio & Clarkson, 2023). Analyzing the etymology and evolution of the words metaverse and ethics with a semantic approach, the authors suggested that it is possible to envision a new concept that bridges the existing gap between the advance of immersive virtual environments and the sociological, anthropological, and philosophical implications that may affect the safety, access, and participation of those using this technology. With this pioneering study, in which the term metavethics was used for the first time, it could be stated that a new field of applied ethics was born. Stating that metavethics focuses on human behaviors related to the metaverse, the authors emphasized that one of the main issues examined by this new discipline is to what extent the metaverse will create a reliable, egalitarian, libertarian, inclusive, accessible, moral, and honest virtual environment for individuals.

Conceptual Framework

In the study, Zallio and Clarkson's (2022; 2023) metavethics doctrines were employed as a conceptual framework since, in the age of the metaverse, this new discipline has the potential to shed light on the designers, administrators, and users of educational metaverse platforms for higher education institutions to carry out a healthy, safe, and ethically-based service approach and to protect the mental and physical health of students and lecturers. Zallio and Clarkson (2022, p. 4) clustered the basic codes for designing a healthy metaverse into five groups, embracing'metaverse awareness, safety and health of users, personalization, data privacy and integrity, social equality and diversity, and accessibility'.

This new field will open up many pain points and solution proposals for the construction of virtual universes that are far from dystopia and beneficial to humanity in higher education. The priority of these is what kind of responsibilities universities should undertake in order for society to understand the metaverse correctly and for young people to acquire metaverse literacy and awareness. Many misunderstandings and myths pervade society towards the metaverse, and it will not be possible to place ethical values on a phenomenon that is not properly comprehended.

Another significant issue that must be discussed within the framework of metavethics for higher education institutions is the risks that the metaverse would create in terms of security. Universities have to ensure the safety and health of their students and lecturers while stepping into virtual universes. In addition, taking into account that individuals in the university may be not only victims of security vulnerabilities, but the perpetrators of cyberbullying, harassment, and cyber-attacks causing physical and mental problems and all kinds of security threats that may arise based on the metaverse are also people themselves, universities should make plans and develop strategies accordingly.

Possibly, one of the most controversial issues on the basis of metavethics is data privacy. The core technology of the metaverse is based on a continuous recording of all events, conversations, biometric data, private data, and behavioral data that occur in these virtual universes, regardless of time, place, or social class (Joye, 2016; Li et al., 2022). In this case, what kind of policy the universities should follow, the ethical issues and measures that can be taken in terms of the violation of personal rights and freedoms, and the right to privacy when a data flow of this quantity and quality gets into the hands of private institutions are issues that need to be carefully filtered by experts. To Zallio and Clarkson (2023), another sub-field of metavethics is the debate of the metaverse in terms of social equality and justice, and the construction of institutions in virtual universes where equality, justice, and inclusiveness are ensured, and cultural richness and diversities are preserved. The metaverse is not supposed to mean a cauldron in which cultural differences disappear and individuals from different ethnicities of the world become uniform. At this point, higher education institutions should be able to provide social equality and justice while preserving different textures and cultural diversity in their metaverse universes. In particular, disadvantaged groups in terms of accessing the metaverse such as lack of digital literacy skills or inadequacy of economic conditions should not be forgotten, and obstacles to the accessibility of the metaverse by all segments of society must be removed.

In a word, the metavethics discipline field, which creates an academic ground for discussion of awareness, security, privacy, honesty, morality, social justice, inclusiveness, and accessibility, has a tension area that could contribute to the healthy, science- and ethics-based design of metaverse universities of the future. A metaverse age, which is not under the control of science and which is shaped without critically filtering digital ethical problems that affect society widely, in which necessary regulations are not made and strong strategies are not developed, can be carnage in realms of higher education and can lead problems such as discrimination, bullying, and mental illness, which are already known to be based on social media and informatics (Schonning et al., 2020), to increase in unavoidable dimensions. When viewed on a large scale, it will be realized that it is an obligation to base the metaverse universes on ethical principles with a conscious and collective effort in higher education. At this point, Zallio and Clarkson (2022, p. 9) mentioned the ten basic principles of a good metaverse: ‘It is open and accessible; honest and understandable; safe; social equality and inclusiveness prevail; sustainable; gives importance to confidentiality; morality and truth; committed to data saving and privacy; strengthens differences with individual freedom of expression; and complementary to the physical world’.

The digital utopias of the actual world will be put into the service of the future meta-human; nevertheless, the digital higher education institutions of the metaverse age can be created and operated in accordance with these ethical standards. Otherwise, it will not be a utopia waiting for society, but a digital dystopia of the youth lost in the meta dump.

The Research Questions

The study draws on Zallio and Clarkson's (2022; 2023) pioneering studies on metavethics as a conceptual framework. This frame was applied as a guide in three different phases of the study, including developing the interview protocol, deductive data analysis, and discussing the findings.

1. What are the ethical issues based on the metaverse in higher education institutions?

2. How can healthy metaverse universities be designed within the framework of ethics?

Methodology

Research Approach and the Study Group

The interpretative phenomenological design, which is a product of a cognition-oriented approach and social cognitive paradigm, was constructed as the research design and was deemed appropriate for the nature of the research in the context of focusing on phenomena that are known but lack in-depth comprehension. In interpretive phenomenological studies, the researchers work with participants who have experienced a phenomenon or have knowledge, views, or perceptions about that phenomenon, not focusing on confirming or disproving the hypotheses in the literature but creating a questioning-rich ground that can be re-discussed in future research on that phenomenon (Seggie & Bayyurt, 2015). One of the strengths of this design is that, although it contradicts the positivist perspective, it provides a flexible research facility in order to work in newly shaped areas while providing the opportunity to feed on existing theoretical frameworks without attempting to prove theories (Brocki & Warden, 2006).

The participants of the study were determined by applying the criterion sampling technique and the snowball technique to purposive sampling methods. While recruiting the participants, it was intended to incorporate the experiences and views of all possible stakeholders in shaping new facts about the problem. In this study, the opinions of lecturers and subject-matter experts were taken into account, and strict attention was paid to ensuring that the participants were representatives of their particular areas in order to provide diverse perspectives and a wider, deeper, and richer vision.

A criterion sampling technique was employed to determine the most suitable group for the purpose of the study (Patton, 2014). Due to the nature of the research, the sample included in the study group should have knowledge and experience of metaverse universes and ethical issues that could emerge. In this context, the epistemological ground of the study depends on authoritative knowledge (Kivunja & Kuyuni, 2017). The study incorporated experts with five years or more experience in metaverse technologies such as VR, AR, MR/XR who were also lecturers and/or academics, and an ideal group of thirteen representatives was obtained. As the expert people specialized in this relatively novice field are sparse and it is quite hard to find and reach them, the snowball technique was also applied in order to contact the key people.

After online research to find experts and lecturers in the fields of metaverse and ethics, the participants were contacted through personal e-mail addresses or social media accounts in order to ask whether they would be interested in joining the research or not. Table 1 delineates the demographic information of thirteen participants who agreed to participate in the research.

Table 1. Participants' demographic information.

Participants' code	Age	Job/Expertise/Role	Experience in their jobs (years)
p1	37	Electronic and Communication Engineer, Academic, Tech Industry Expert (VR-AR), Tech Entrepreneur, and Founding Manager of a Tech Firm	15
p2	36	Software Engineer, Academic, Tech Industry Expert, 3D Modeling, VR-AR, Project Manager for Metaverse Platforms	9
p3	42	Lecturer, Academic (AI), VR-AI, CEO of an Educational Metaverse Platform, Co-Leaders of Educators in VR	18
p4	32	Lecturer/Academic (computer sciences), Technical, Tech Industry Expert (VR, AR), Blockchain, and NFT	8
p5	35	Lecturer, Academic (Computer Sciences), Technical Tech Expert—VR-AR	10
p6	34	Lecturer, Academic (Software Engineer), VR-AR-AI, Project Manager for Metaverse Platforms	10
p7	45	Lecturer, Academic (Educational Sciences), VR-AR-Metaverse & Ethics Specialist	12
p8	35	Advisor, Academic (VR), VR-AR -XR Ethics, Consultant & Educator on AR-VR, Data Visualization, Specialist in Data & Ethics in the Metaverse	8
p9	33	Doctor, Academic (Digital Health), VR-AR-Tech Ethics, Bio Ethics-Digital Health, Tech Entrepreneur, Founding Manager of a Digital Health Company	9
p10	59	Advisor, Academic (Digital Health), VR-AR-Tech Expert-Digital Health, Founding Manager of a Digital Health Company, Consultant & Educator on Digital Health, Digitalization Humanist & Activist	30
P11	53	Lecturer, Academic (Psychology), Cyber Health -Cyber Psychology-Cyber Bullying-Digital Gaming-Educational, Head of Basic Education Department	28
P12	48	Lecturer, Academic (Media & Creative Industries), Posthumanism-Context Engineering-Metaverse & Hybrid	24

		Technologies, Director of the Learning Technology Research	
P13	51	Lecturer, Academic (Immersive Arts), Distance Learning-XR- Digital Gaming, Associate Dean-Head of Immersive Arts and Culture Hub and XR and Gaming Lab	26

Data Collection Tools and Procedures

The semi-structured interview protocol, in which the questions were clustered in five dimensions, including metaverse awareness, safety and wellness, security, data privacy and private life, social equality and diversity, and accessibility, was prepared within the framework of metavethics principles. When the interview questions were prepared, they were sent to four experts for revision and advice, comprising two XR experts, a higher education expert, and a language expert.

During the data collection process, the day, the time, and the place of the interview were scheduled together with the voluntary participants, and the interviews were recorded in order to avoid data loss after obtaining the consent of the participants. Most of the interviews were conducted through Zoom meetings, which usually lasted between one and two hours since some of the participants were from different countries and some others were from far-off locations from the researchers despite residing in the same country.

Data Analysis

Qualitative data analysis is the process of making sense of the collected verbal data sets in a non-mechanical but systematic and dynamic way (Gibbs, 2007; Glesne, 2015). The analysis of the research data started with the transfer of all the voice recording files collected from the participants to the written environment via computer without any changes or loss of data. The total length of the written documents obtained from the video interviews with 13 participants was calculated at 167 pages. For the initial analysis of the data, a deductive approach was applied based on Zallio and Clarkson's (2022–2023) principles of metavethics. The codes were clustered under five thematic nodes extracted from the semi-structured interview questions, which were previously prepared in the context of metavethics and adapted to higher education. The Nvivo 14 qualitative data analysis program was applied for open-coding and axial-coding of the data. The open coding phase for content analysis was carried out by dividing the data into manageable parts and placing all the connected parts into appropriate codes. The open coding process can be seen as an analytical process in which the data are divided into smaller and more meaningful pieces, carefully examined and compared in terms of similarities and differences, and placed in an appropriate category accordingly (Strauss & Corbin, 1990; Auerbach & Silverstein, 2003).

In the axial coding process of the study, unlike the initial analysis process, a more deductive approach was followed in the data pool, which was divided into small pieces in the open coding process, and in this way, the researcher followed a path open to the emergence of new categories and themes and new theoretical foundations in this context. While the deductive reasoning approach is considered an important strategy in terms of testing the accuracy and validity of existing theories and categories, constantly reviewing and re-evaluating them, the deductive approach is also important in terms of explaining research findings, establishing causal relationships, and forming new theoretical foundations (Williams & Moser, 2019). In both open coding and axial coding processes, the analyst continued to ask all kinds of generative questions, constantly made theoretical comparisons, and conceptualized existing codes using a systematic method and analytical tools (Williams & Moser, 2019; Moghaddam, 2006).

Results and Discussion

A deductive method based on the metavethics principles of Zallio and Clarkson (2022–2023) was applied for the analysis of the data collected through the interviews. The codes were clustered under five thematic nodes, which were taken from semi-structured interview questions previously prepared within the scope of metavethics. The main nodes are as follows: (1) metaverse awareness and the sphere of influence of the metaverse on higher education; (2) security, data privacy, and private life in higher education; (3) safety and wellness of students and lecturers; (4) social equality and diversity; and (5) accessibility of the metaverse in higher education.

This part of the study, which also includes some underlying quotes from the participants, holds forth the findings of the research under these five main nodes, together with the sub-themes that cluster under each node, as demonstrated in Figure 1.

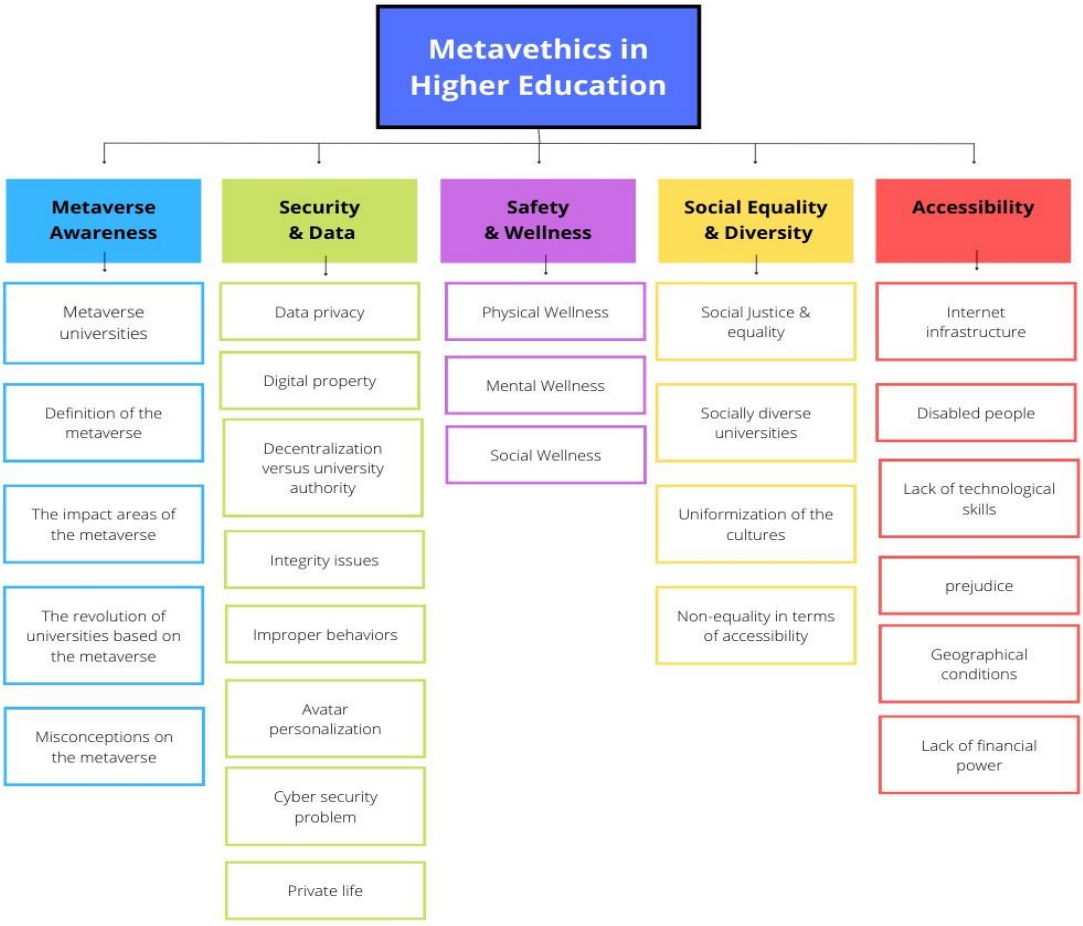

Figure. 1. The main nodes and sub-themes of the metavethics in higher education based on the data

Metaverse Awareness and the Sphere of Influence of the Metaverse on Higher Education

It is worth noting that the metaverse, as a concept that just entered our lives and is still developing, does not have a single universally accepted definition, and different descriptions are made by different institutions and organizations in line with their own perspectives, comments, and visions. Similarly, different academic circles have not reached a consensus yet, and the definitions and meanings they assign to the metaverse change depending on whether they look from a technological or philosophical perspective (Li, 2022; Cho et al., 2022; Lee et al., 2021; Clemens, 2022). Metaverse does not have a single definition—an owner or a founder—and can be considered a technological space roughly similar to the World Wide Web (Ball, 2022). The uncertainty and obscurity in precisely defining the metaverse could also create confusion on how to utilize it as a service, on how great the potential of it is for creating the future, and most importantly, on how ethical implications and precautions could be applied for a healthy metaverse organization (Zallio & Clarkson, 2022).

The sub-themes that were created under the node related to metaverse awareness are: definition of the metaverse; misconceptions about the metaverse; impact areas of the metaverse; metaverse universities; and the revolution of universities based on the metaverse. The participants clarified that although it is tough to reach a consensus on the universal definition of the metaverse, it could be highlighted what the metaverse is not and what the misconceptions are in order to create awareness in society about the metaverse. Here are some different definitions of the metaverse made by the experts in the study and some misconceptions about the metaverse they thought were very common myths in society:

'In fact, it can be considered what the transition from the radio to the internet means—humanity is the transition from the internet to the metaverse.' (p. 1)

> It is an interconnected environment, or virtual world. There is actually a framework like interpretability and the other stuff; it is not controlled by someone or by a company, and it is open, which means probability. I mean, the metaverse is like a network—the internet. It is not Facebook. They think everything in VR is the metaverse. No, from my own perspective, the metaverse is something like a platform where you create communities, which you have control over; it is not a VR game. (p. 3)

> So, what does it mean? A vision is something that is not necessarily implemented. It's something that's coming. It's a trend in computing and very important. It's ubiquitous. It surrounds us. … it's seamless. it's immersive. (p. 8)

> Let me put it this way: the metaverse is like a forbidden apple that has just been promised to humanity. A parallel universe is promised to humans, so they promise an environment where you can do everything and experience the emotions you feel in daily life with the equipment you wear. You know, you can earn money there, you can get an education there, you can continue your business life there, you can have a virtual office, and people can come there. They offer you an alternative to the real world.(p. 6)

The respondents also emphasized that when the metaverse is fully achieved, it will impact nearly all areas of human life, including education, health, the military, entertainment, and so on, as one of the interviewees asserted, 'It will eventually take the place of our mobile phones and the internet' (p. 8). Despite the fact that they mentioned many different areas that the metaverse will influence in the future, all the participants agreed that the biggest impact of it will be on education. That is why they underlined the significance of the studies, which must focus more on the educational metaverse. The participants also indicated that there will be huge transformations and revolutions at universities due to the metaverse, as indicated in the following sample statements:

> In the long run, as a matter of fact, we may get back to the times when there were no universities in the past. In other words, we will be out of the universities as we know them now, and we will switch to the learning-by-doing model as in the past. Because the metaverse will allow it. (p. 1)

> The campuses may disappear, or they will have to evolve, although they do not vanish completely. They may evolve into hubs for accessing the metaverse by providing high-speed internet, wearable technology, emotionally stimulating clothes, headsets, tactile sleeves, and so on. (p. 5)
> So, one of the things in terms of universities is: do the administrators and teachers understand what the metaverse is and how to teach in it? Because the thing is that in this book chapter that I wrote about, Zoom has a transmissive nature where we can't engage students effectively in the classroom, whereas VR or AR has a more interactive nature, and if we understand it well, we can engage students in meaningful learning. So, there will be more interaction and engagement in the virtual classroom with, I mean, the help of VR and AR technologies. (p. 3)

A correct vision of the metaverse will allow us to see how this new technology, which has already taken its first steps, will surround our lives and involve all areas of human activity over time. According to the participants, the metaverse will lead to major transformations and revolutions in universities, eventually moving all education and training activities into the metaverse. Physical buildings will be replaced by VR campuses, books and teaching materials will be replaced by digital materials, classical and traditional assessment and evaluation methods will be replaced by personalized, individualized, and practice-based VR methods, and students in classrooms will be replaced by avatars. After a period of time, we will stop calling a higher education institution a university in the metaverse era, just as the terms academia and madrasa were replaced by university, and we will start calling it a metaversity. The term 'metaversity', which is a newly introduced concept in the literature and is thought to have already influenced teaching paradigms, is defined as digital campuses that copy physical classroom environments and physical buildings, metaverse-based higher education institutions that allow us to live XR experiences in the classroom environment, and are created by configuring digital twins of real environments in virtual environments (Sun et al., 2021; Sutikno & Aisyahrani, 2022; Ruwodo et al., 2022; Hassanzadeh 2022). Sutikno and Aisyahrani (2022) interpret the metaversity as the first step in a higher education iteration that will eventually become part of a full, global metaverse and see it as the next generation of universities where physical boundaries are completely

removed, teaching is personalized, and students experience immersive XR technologies that enable more effective and lasting learning. Metaversities have the potential to immerse the world's students in the same learning environment, transforming the entire world into a single virtual classroom.

In many ways, these digital campuses are the next step in higher education, creating an immersive education that is different from universities. It is thought that metaversities will become a mainstream worldwide in the 1930s (Price & Price, 2023). In brief, the interviewees revealed their confusion about the term metaverse in society and asserted that it is important to understand what the metaverse and metaversities mean for humanity in order to increase the positive sphere of influence on higher education. It is not possible to keep control of phenomena that we do not know or cannot make sense of correctly and whose dynamics we cannot master. In particular, a misunderstanding or incomplete understanding of an innovation such as the metaverse, which will radically affect humanity, has deep meanings not only in technological but also in philosophical, sociological, and psychological aspects, and has reformist power, will make the preparations to be made in this framework superficial and ineffective. Any innovation for which we are unprepared is a threat, especially when it comes to the education of a generation, and a misunderstood or underestimated technology can be devastating for humanity. This is why metaverse awareness and a proper understanding of the metaverse are at the heart of metavethics. Only when there is a full awareness of the metaverse in a society, when the metaverse is understood correctly by both the public and the policymakers who will guide the public, can we talk about the shaping of an ethical educational metaverse in that society.

Security, Data Privacy, and Private Life in Higher Education

Nearly all the participants believe that security issues will be the most controversial and crucial matter in designing a metaverse university. In terms of the security of metaverse universities, the interviewees focused on: data privacy; digital property; private life; cyber security problems; decentralization of the metaverse platforms versus university authority; avatar personalization; integrity issues; and students' and lecturers' improper behaviors that could emerge in metaverse universes. Some of the participants declared their worries about security, private life, and data privacy with the words as follows:

> Now, when you set up a system like the metaverse, how will you protect a school's evaluation system, management system, and information system? Secondly, how will you prevent your students from copying their identity information, fingerprints, habits, physical shapes, and retinas at school? There are thousands of problems. Can these also be prevented? I think it is hard right now. (p. 1)

> They have determined full control over people and a new management philosophy, so to speak. And in this philosophy, human beings are given new tools and are offered new ideologies sociologically, economically, and administratively, so the metaverse is a part of it. And here, as security risks, in the world of the future, personal information of people will be everywhere, like a sheet, and people will be expected to consent to this voluntarily for the safety of society. This is how they come to mankind. You know, human beings are faced with such a situation because they have a mentality—for humans, despite humans. (p. 6)

> By only looking at your mobile phone signals and credit cards, I can follow where your average home is, where your workplace is, which roads you use, what you wear, where you eat, what you do, and so on. For me, it is easy to do this with even Web 2.0 technology. The metaverse will allow you to have much more detailed information in a much faster time. In other words, if we take a 4-year education period at a university as a basis, we will be able to predict everything about the students that we have followed for 4 years. That means the limitation and prohibition of freedom. You know, we are fighting many wars in the name of freedom today. This will make all the wars go to waste. (p. 5)

The most highlighted issue, which is one of the biggest and most significant dangers that will impact the metaverse and its users, is cyber security and privacy. It is claimed that advanced blockchain technologies currently take many precautions to safeguard users' security and privacy by instituting authentication within the metaverse; however, because cyberattacks and threats are becoming increasingly complex and swiftly evolving, it is anticipated that they will continue to be significant (Saraçoğlu, 2022). Because of this, it is stressed that robust privacy and security measures ought to be incorporated into the system right from the start for a metaverse

institution, and privacy and security are among the most prominent topics as the core concepts of the metaverse (Abbate et al, 2022).

Participants support the idea the idea that the web 3 technology on which the metaverse is based and the equipment needed to access the metaverse will make data security and privacy more fragile and increase vulnerabilities. Nevertheless, no security or privacy policies apply to higher education's metaverse. Because the metaverse offers enhanced and tailored experiences, it is necessary to acquire private data, and users frequently aren't aware of the type of data they are giving the system; for instance, a twenty-minute virtual reality headset activity is thought to provide about 2 million data points from a person's body language, which includes head and hand gestures, facial expressions, and behavioral traits associated with both mental and physical health (Saraçoğlu, 2022).

All actions, social interactions, biometric data, and behavioral metrics that occur in these virtual worlds are perpetually kept track of, having no regard for the user's location, time, or social standing. Which means that educational metaverse platforms are building their systems on big data, and the metaverse's core Web 3.0 technology will give these platforms access to a broad range and volume of data flow that weren't possible with earlier technologies (Joye, 2016; Li et al., 2022). Participants consented that all conversations, tutorials, activities, research, and views made by students' and lecturers' avatars would be captured on the metaverse platforms, giving some private companies access to their personal information and, more significantly, their intellectual property. There is no protection stopping the employees of certain commercial companies that set up the teaching metaverse platforms from exploiting or selling these intellectual rights. As a result, there would be a significant risk involved. According to this reasoning, in the age of the metaverse, academic institutions ought to take intellectual property and privacy seriously. In the near future, data security and privacy will eventually play an important role in individuals' university choices.

According to the participants, there are various security and data privacy problems emerging from the metaverse in higher education. The matters that the interviewees emphasized and the possible solutions or issues that must be taken into consideration while designing a healthy metaverse university can be summarized as follows:

(1) Private companies that would provide the service to higher education are the biggest risk in terms of the fact the fact that these private companies or persons working there can sell the data of the students and lecturers to big companies. In other words, big data is the new petrol of the world (Lee, 2018). That is why, if it is possible, universities must constitute their own software developer teams who are specialized in VR/AR/XR and 3D modeling for designing and managing the virtual campuses. If it is not possible, universities must assuredly sign very strict contracts, including the items that embrace the sanctions in case of selling or leaking the data.

(2) The danger is not just out of the university; students and lecturers can also steal or sell the data in the metaverse. Severe sanctions must be determined and the students and lecturers must sign before they are allowed to participate in the virtual campuses.

(3) Since wearable technologies like headsets make biometric data of individuals reachable and trackable (Rich et al., 2019), university management needs to take precautions to prevent spyware and hackers and preserve the students and lecturers.

(4) Also, some misbehaviors may take place on metaverse platforms that can risk the safety and privacy of the students and lecturers, such as cyberbullying, cyber harassment, or disclosure videos, since it is easier for people to hide their identity in a virtual environment compared to a physical environment. That is why, at the beginning of the fresh year, each student must be given a preparatory course for the metaverse in order to teach them how to behave and act in a metaverse environment and the consequences or sanctions in an otherwise normal condition.

(5) Decentralization is another important issue that must be taken into consideration in a metaverse environment since the decentralized internet is one of the basic technologies of the metaverse. Although most of the participants believe that a fully decentralized metaverse platform may not work in higher education and may increase the problems without a university authority, some of the participants claimed that decentralization is something we need for a more democratized internet and a more democratized university, and it is something

that we should not give up for a seeking of traditional authority. A good and strict metaverse policy for the university can help overcome the problems emerging due to the lack of authority.

(6) In a metaverse community, there will be personalized avatars or metahumans representing real people, and in a university environment having virtual classes through the metaverse, several ethical issues can arise due to the use of avatars. Most of the participants had a consensus that there must be an avatar policy determined by the university in line with the philosophy, perspective, and purposes of the higher education organizations for avoiding avatar-based problems.

(7) Some of the experts in the study proposed a bunch of useful precautions for dishonesty problems in higher education, which are having a very strong three-stage encryption system like in banks and finance companies for blocking foreign people out of the university, choosing the educational platforms very carefully, adding an eye retina reader password program to the headsets of the students, and recording the real images of the students every five to ten seconds during the classes with their permission for preventing manipulation and providing verification as it is difficult to understand whether it is the true person behind the avatar. However, they also had a consensus that it is not likely to continue with the current testing and teaching methods in a metaverse world, so it will create a system in which cheating has no more significance while manipulating can have bigger importance.

Safety and Wellness of Students and Lecturers

The safety and well-being of the students and lecturers in a metaverse environment can be evaluated in three dimensions, which are: physical wellness; mental wellness; and social wellness.

In terms of the physical wellness of students and lecturers, the participants clarified that the main problem is mostly the headsets for now that can cause physical harm and injuries, not the metaverse platforms themselves. Some of the interviewees asserted that if one is not accustomed to using a headset, unfortunately, it takes only one or two hours to bear or tolerate the headset without getting sick or getting symptoms like vomiting or being dizzy. That is why, firstly, the students and the lecturers must be trained before they use the headset, and they must also get gradually accustomed to it. For the participants, even though they are accustomed to VR headsets, there still must be a time limit for using them, and that means virtual classes need to be limited to much less time compared to traditional classes. As we currently stand, using the metaverse requires particular gadgets like VR goggles and headsets. Students will feel a range of physiological discomfort if they use these devices for extended periods of time, which could be harmful to their individual well-being. There have been some studies showing numerous youngsters in the United States have had symptoms like nausea, vertigo, disorientation, or a lack of spatial awareness subsequent to wearing virtual reality headsets (Liu, 2022).

On the other hand, the mental and social harms of the metaverse to students and lecturers can outnumber the physical harms. To the participants, the leading ethical problems of social and mental origin based on the metaverse comprise addiction problems, identity confusion, losing the reality phenomenon, depression, isolation problems, inadaptability to physical society, rejecting the identity, double personality, numbing, and some others. A metaverse world without ethical implications could generate more disenfranchised, isolated, and addicted persons with low social and communication skills and with more anxieties and damaged brains (Rich & Miah, 2014; Greenfield, 2011).

Using the human mental sense as a starting point, the utilization of multidimensional media, algorithmic graphics, installation art, extending interactive features, and other innovations offers people an authentic moment that is engaging and highly addictive (Li, 2022). Li asserts that if this keeps on, people won't be able to tell the difference between reality and virtuality and will start misusing the virtual world's norms in the actual world, and eventually value distortion, utilizing technology to escape reality, engaging in virtual world indulgence, declining societal duties in the actual world, and dealing with various identity, emotional, and cognitive crises will be among the issues we have to deal with.

In order to prevent these physical, mental, and social harms of the metaverse, the participants suggested some implications for the universities, such as not giving up the physical classes completely, having some kinds of social meetings on the physical campus, and making the psychology department of the universities stronger. However, they also asserted that the definite solution to these harms can be possible only when the technology develops more, like having lighter and healthier-safe headsets, transferring all the emotions to the metaverse, and making a

way in post-humanism to have the same experiences in the metaverse worlds that we have in the physical worlds as a result of the more advanced, human-like avatars taking the place of current clunky avatars.

Social Equality and Diversity

The sub-themes that were created under the node social equality and diversity are: socially diverse universities; uniformization of cultures; social equality and justice; and inequality in terms of accessibility.

To most of the participants, the social equality and diversity dimension of the ethical frame will be the least problematic area, as the metaverse itself creates a world on average where every user is equal after they have accessed the metaverse, and it mostly does not convey the illusional differences and privileges between people in the real world, such as financial power or physical superiority. The only superiority in a metaverse platform in higher education can be intellectual and academic superiority, which in general do not cause an unethical situation. Nevertheless, a couple of participants disagreed with that opinion, claiming that, even on metaverse platforms, some kinds of privileges are granted to overly rich people, as in the example of CryptoPunk avatars:

> CryptoPunks are the most famous avatars in Web 3.0 technology, and they are the most expensive. And also the mutants, the apes, and there was something else; these are very expensive. They are well known for it because they are like the oligarch, for very rich people in different countries. So, when they want to go to the metaverse, they have these CryptoPunk faces. So that they can be identified from one metaverse to another. And so, others who had less expensive avatars are going to change between these avatars, and that's fine. (p. 3)

So, in order not to spoil the equal nature of an ethical metaverse at universities, it should not be permitted for the students or the lecturers to use these kinds of overly expensive avatars or NFTs.

Another point of crucial importance in an ethical metaverse is preserving cultural diversity and not allowing the uniformization of communities. With metaverse technologies, it will be possible for higher education institutions to embrace more universal students from different countries, cultures, religions, and ethnicities.

Basing its philosophy on the idea the idea that the metaverse ought to prioritize human welfare and diversity above all else, a diverse group of creators with shared innovation skills is necessary for the metaverse to thrive, and participation in this new universe must be open to everybody (Clemens, 2022). The metaverse of higher education ought to be a space that respects cultural diversity and richness while advancing social justice, inclusiveness, and equality. The metaverse shouldn't turn into a place of melting pots where people from different countries all blend with one another and lose their unique cultural identities. In order to advance social justice and equity, higher education institutions must be able to maintain the broad spectrum and different cultural backgrounds of their metaverse universes.

Accessibility of the Metaverse

The respondents asserted that one of the biggest obstacles in front of an ethical metaverse university will be the accessing problem for the students in terms of the fact the fact that not every segment of society will have an equal opportunity to reach the metaverse, which would lead the educational administrators of the higher education institutions to think twice before they initiate a metaverse project for their organizations. The social equality inside the metaverse and the social equality for accessing the metaverse are oxymoronic issues. We are as unequal outside as we are equal inside the metaverse due to numerous paramount issues, which are: lack of financial power; internet infrastructure; geographical conditions; lack of technological skills; disabled people; and prejudice.

All the participants arrived at a consensus that the lack of internet infrastructure for metaverse platforms, which usually need 5G with a very strong infrastructure, and the sumptuousness of the devices to access the metaverse, such as wearable technologies and high-tech computers, are the two biggest problems for now because most of the students, especially in the underdeveloped countries, do not have the necessary economic power to participate in the virtual classes in a metaverse university. Costly infrastructure: not only are XR technologies more expensive than conventional learning aids like computers and books, but they also often require a fast internet connection like 5G, and as it takes specialized equipment and expertise to create the interactive simulated settings, educational content creation is more expensive (Pimentel et al., 2022). When it comes to challenges with accessibility and usability, the XR technologies that currently exist can be troublesome for many individuals to use, including

financially disadvantaged groups of society and disabled students like someone with limited hand movement to operate controls (Kaddoura, S., & Al Husseiny, F., 2023).

On that point, it is considered by the respondents that the governments and universities are responsible for providing the necessary facilities to access the metaverse technology to the students and lecturers, besides enabling the metaverse education by training them on how to use immersive technologies and by breaking the prejudices, myths, and misconceptions about the metaverse.

> *'And the Lord God commanded the man, saying, "You may surely eat of every tree of the garden, but of the tree of the knowledge of good and evil you shall not eat, for in the day that you eat of it you shall surely die."*
>
> *Genesis 2:16-17*

Conclusion and Future Implications

'Science that philosophy does not feed is lame; technology that is not surrounded by universal morality and ethics is blind; science that is not at the table of curiosity and doubt is hungry.' (Aydın, 2022, p. 112). Blind technology and science, without a doubt, would lead humanity and implicitly the universities, which are the catalysts of humanity, to chaos. We must consider that the ethical and social consequences of new technologies such as XR would be grievous, as would the opportunities they provide. The quickest solution to prevent disappointing results is to make legal regulations in the short run while working on more comprehensive solutions in the long run, such as improving digital literacy on XR and developing new technologies to deal with the vicious use of the technology (Lee & Quifan, 2021). However, the crucial point is perceiving that it is not possible to regulate the technology of tomorrow with the policies of yesterday (Hoven, 2017). Based on the visions of the experts in the study, a policy of metaverse in higher education must be framed within the following ethical principles:

The principles for a healthy metaverse university:

(1) All the stakeholders, including lecturers, students, and employees, must have high digital literacy in the metaverse.
(2) The data privacy and private lives of individuals in the metaverse must be protected by the university and government legislation.
(3) A metaverse university must be safe physically, mentally, and socially.
(4) A democratic and strong avatar policy must be designed and implemented, depending on the philosophy of the university.
(5) A metaverse university must ensure a process based on morality, honesty, and integrity.
(6) A metaverse university must develop a sense of responsibility among the individuals behind the avatars for the actions they take in virtual environments.
(7) The sanctions to be applied for digital offenses and online misbehaviors must be determined by university policy.
(8) An educational environment where social equality is ensured and cultural diversity is preserved must be provided.
(9) A metaverse university must guarantee accessibility for all students and lecturers from all segments of society.

The metaverse is no longer a speculation or utopian idea but a reality of higher education, with many educational institutions taking their first steps into the global metaverse by creating digital twin campuses and implementing metaverse classrooms. This growing number of digital twin campuses supports the idea the idea that the metaverse will become mainstream in higher education in the next 10 years and will be a natural part of the education of university students in the near future (Price & Price, 2023). Higher education institutions should not be followers or just users of the metaverse, but builders, creators, producers, and pioneers of this work. If we start an infrastructure project for a digital twin of any university today, it will be possible within at least 5 to 10 years with a serious budget and hard work. Changing servers, providing hardware and equipment, finding highly qualified software developers and training them by experts in this field for educational metaverse platforms, establishing a team, creating 3D digital modeling of the university, creating digital course content, developing scenarios, training

professors and staff, establishing laboratories, creating ethical regulations, enacting the necessary laws, making agreements, and training students require a very serious budget, labor, and time. On the other hand, if universities do not take the helm of this work and become dependent on private companies to buy all systems and technological equipment, including VR glasses and sensors, that will mean the higher education institutions will voluntarily hand in the big data (the new petrol) to the capital.

The worst scenario is that the institutions that will shape the metaverse in higher education will not be leading educational organizations but giant technology companies motivated by capital, a threat that could plunge the whole of higher education into a dark chaos. It is therefore an ethical imperative for higher education organizations to be at the command center and steer the ship of the educational metaverse. Barnett (2017) states that the philosophical motivation of higher education institutions is not only to understand and embrace the university but also to constantly change and transform universities so that they can keep pace with the needs of the new world, always a few steps ahead of the changing society. The most important element that should not be ignored at every stage of this continuous transformation process is to move higher education to a more humanist and ethically based position at every step and to be shaped accordingly. The formation and analysis of ethics-centered organizational structures in higher education and the identification of problems and solutions to ethical contradictions and challenges are considered within the scope of the administrative duties of higher education (Karsantık & Çetin, 2020). In this context, the ethical discussions and analyses of the educational metaverse structures that are taking shape in universities are among the issues that should be urgently included in the agenda and focus of attention of higher education administrators before entering a process that cannot be changed or reversed.

In this context, creating its own crew and developing its own digital twin and metaverse platform is a must for each higher education institution that desires to continue its existence and does not want to be dependent on private companies in this era when we are witnessing a rapid digital transformation. The following step should be the rapid enactment and implementation of ethical laws and regulations that are in line with the philosophy and objectives of the organization to protect humans inside the metaverse system. The metaverse is a very relatively novel topic, especially in the social sciences, and we need more and more research on the metaverse in the humanities if we want to create an ethical and moral metaverse that is human-based, transparent, honest, and where human values are inclusive and determinative.

The metaverse is like the second forbidden fruit of humanity cracking the gate of an uncertain and ambiguous world of futuristic, immersive technology, and the point is that we do not know whether the gate is opening to a heaven-like utopian world or a hell-like dystopian world. Possibly, it would be better to delineate the metaverse as neither of those; instead, just like the other samplings of novice technology, we are supposed to consider it as a ‘two-sided blade’ (p. 6) or a ‘double-edged weapon’ (p. 3), which has both the potential of reforming educational institutions into more advanced, conscious, honest, equal, diverse, inclusive, and sophisticated communities, and also the potential of setting them back into a scotophase with a lack of ethical norms. If we want to shape metaverse universities of the future within the concept of ethical principles, for tomorrow, we need to perk up our ears to the wise, knowledgeable, and experienced experts of this field who know both the opportunities, possibilities, and also the vulnerabilities and weaknesses of the metaverse system well, for today, since they are like the trees of knowledge of good and evil from the garden of Eden that both produce the forbidden fruit and warn humanity about the possibilities and consequences.

Acknowledgements or Notes

The authors received no financial support for the research and/or authorship of this article.

Author (s) Contribution Rate

Nurten Gündüz conducted the research, analysed the data, wrote the sections of introduction, literature review, and methodology, co-wrote the results and discussion, and the conclusion. Mehmet Sincar reviewed and edited all the sections, co-wrote the results and discussion, and the conclusion, and supervised the whole study.

Ethical Approval

Ethical permission with a number of 361920 was obtained from Gaziantep University's social and humanities ethics committee for this research on September 11, 2023.

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International Journal of Contemporary Educational Research
Volume 11, Number 2, June 2024, Page 204-218 Article Type: Research Article

Development and Validation of the Online Antisocial Personality Scale (OAPS) Using the DSM-5 Criteria for Antisocial Personality Disorder (APD)

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Abstract
Recent studies have consistently demonstrated that antisocial behaviors occur in online environments. Although online antisocial behavior has a long history, it appears to have become more widespread in recent years due to the widespread use of online social networks. Although there are established criteria and instruments assessing antisocial behavior there are few examining such behavior online. Therefore, the present study aimed to develop the Online Antisocial Personality Scale (OAPS). The OAPS was developed using the diagnostic criteria for antisocial personality disorder in DSM-5. The OAPS assesses antisocial behavior in online environments. The present study comprised 447 adolescents (219 girls and 228 boys) from four different samples. The measures used included the Online Antisocial Personality Scale (OAPS), E-Bullyıng Scale (E-BS), and Personality Belief Questionnaire-Short Form (PBQ-STF). The structural validity of OAPS was investigated with exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and criterion validity. When validity and reliability analysis of the OAPS are considered as a whole, it is concluded that the OAPS is a valid and reliable scale that assesses online antisocial personality among adolescents.

Keywords: Antisocial personality, antisocial personality disorder, online antisocial behavior, online antisocial personality

Citation
Griffiths, M.D., Savci, H. & Savci, M. (2024). Development and validation of the Online Antisocial Personality Scale (OAPS) using the DSM-5 criteria for antisocial personality disorder (APD). *International Journal of Contemporary Educational Research*, *11*(2), 204-218. https://doi.org/10.52380/ijcer.2024.11.2.641

Received	29.12.2023
Accepted	21.05.2024
Publication	07.06.2024
Peer-Review	Double anonymized - Double Blind
Plagiarism Checks	Yes - iThenticate
Conflicts of Interest	The authors have no conflict of interest to declare.
Complaints	ijceroffice@gmail.com
Grant Support	The authors acknowledge that they received no external funding in support of this research.

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Introduction

Antisocial personality disorder (APD) is defined as a pervasive pattern of disregard for (and violation of) the rights of others among individuals over the age 15 years but is known to begin in childhood or early adolescence and continues into adulthood. This pattern has also been referred to as psychopathy, sociopathy, and dissocial personality disorder (American Psychiatric Association [APA], 2013). Antisocial individuals are known to have a handicap in empathy. This causes antisocial individuals to be indifferent to the feelings, rights, and suffering of others. APD is widespread. The one-year prevalence of the disorder is between 0.2% and 3.3% (APA, 2013). Alcohol use disorder, substance addiction, low socioeconomic status, and sociocultural factors (migration, etc.) increase the prevalence of the disorder (APA, 2013). The APA (2013) diagnoses APD according to seven diagnostic criteria. These are legal irresponsibility (*"failure to conform to social norms with respect to lawful behaviors, as indicated by repeatedly performing acts that are grounds for arrest"*: p. 659); deceitfulness: (*"as indicated by repeated lying, use of aliases, or conning others for personal profit or pleasure"*: pp., 659); impulsivity (*"failure to plan ahead"*: p. 659); irritability-aggressiveness (*"as indicated by repeated physical fights or assaults"*: p. 659); security irresponsibility (*"reckless disregard for safety of self or others"*: p. 659); economic irresponsibility (*"as indicated by repeated failure to sustain consistent work behavior or honor financial obligations"*: p. 659); and impenitence (*"lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another"*: p. 659).

More recently, studies have been conducted examining whether antisocial behaviors are possible in online environments. For instance, research has been carried out (amongst others) into (i) antisocial behaviors in online discussion environments (Cheng et al., 2015), (ii) identifying individuals with antisocial behaviors in online environments (Kumar et al., 2017), (iii) identifying antisocial behavior on *Twitter* (Almuhanna, 2017), (iv) using social media in an antisocial way (Den Hamer et al., 2014), (v) online antisocial and prosocial behaviors (Erreygers et al., 2017), (vi) cyber-trolling behaviors in terms of psychopathy, sadism, and empathy (Sest & March, 2017), (vii) hostility among *Instagram* users (Liu et al., 2018), and (viii) exposure to online antisocial behavior (Davis, 2002). These studies emphasize that antisocial behavior is possible in online environments.

Although online antisocial behavior has a long history, it appears to have become more widespread in recent years due to the widespread use of online social networks such as *Twitter*, *Facebook* and *YouTube* (Almuhanna, 2017). Research has shown that individuals exposed to online antisocial behavior have similar psychosocial reactions to individuals exposed to offline antisocial behaviors (Kowalski et al., 2014; Nicol, 2012; Sest & March, 2017). Furthermore, exposure to online antisocial behaviors may leave more permanent psychological distress on the victim (Park et al., 2014). Adolescents who are exposed to antisocial behavior in online environments tend to show antisocial behaviors in online environments and offline social environments (Den Hamer et al., 2014; Fanti et al., 2012). In other words, victims can come to engage in the same antisocial behavior over time if they have experienced it themselves (Kowalski et al., 2014). In addition, online antisocial behaviors can penetrate large audiences quickly and show longer-lasting effects for the victims. Indeed, the online environment can arguably facilitate antisocial behavior, such as sending hate mail or serious threats, spreading rumors, and/or carrying out sexual and racial harassment (Dehue, 2013). Consequently, online antisocial behaviors are arguably at least as dangerous and destructive as offline antisocial behaviors.

The APA's (2013) definition of APD can also be applied to online antisocial behavior. Such online antisocial behaviors can include (but are not limited to) cyber-flaming, cyber-hate, online provocation, online antagonism (Almuhanna, 2017), cyber-trolling (Cheng et al., 2017), cyber-stalking (Reyns, 2012), cyber-aggression (Álvarez-García et al., 2018), cyber-violence (Owen, 2016; Peterson & Densley, 2017), cyber-hostility (Liu et al., 2018), griefing (Cheng et al., 2015) computer crime (Seigfried-Spellar et al., 2017), hacking (Barber, 2001), and cyberbullying (Cao & Lin 2015; Den Hamer et al., 2014). In this context, online antisocial behavior can be defined as disregard for and violation of the rights of others in online environments.

In empirical studies, the concepts of cyber-hostility, cyber-trolling, and cyberbullying are prominent. Cyber-hostility is defined as harassing, threatening, or offensive language directed toward a specific individual or group online (Liu et al., 2018). Cyber-trolling is defined as deliberate provocation of others using deception and harmful behavior in online environments (Hardaker, 2010). Cyberbullying is defined as an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself (Smith et al., 2008). Cyberbullying is considered to constitute a specific form of antisocial behavior, characterized by an intentionality to repetitively hurt an individual alongside an imbalance of power (Erreygers et al., 2017). Cyberbullying is one of the most researched topics among online antisocial behaviors (Kowalski et al., 2014).

Kowalski et al. (2014) conducted a multidimensional meta-analysis study on 131 cyberbullying studies. The results demonstrated that cyberbullies were found to be more disadvantaged in terms of satisfaction, drug and alcohol use, self-esteem, academic achievement, and loneliness. Risk factors for cyberbullying perpetration included cyber-victimization, traditional bullying, traditional victimization, age, frequency of internet use, moral disengagement, normative beliefs about aggression, anger, risky online behavior and narcissism. Protective factors for cyberbullying perpetration included having empathy for others, parental monitoring, interpersonal skills, perceived support by peer and family, positive school climate, and the physical, social and psychological safety of the school. Possible consequences of being cyberbullied include depression, self-esteem, anxiety, academic achievement, loneliness, life satisfaction and drug and alcohol use. According to the meta-analysis, individuals who reported high levels of cyberbullying victimization also tended to report high levels of stress, suicidal ideation, depression, anxiety, loneliness, somatic symptoms, conduct and emotional problems, and drug and alcohol use. In addition, individuals who reported high levels of cyberbullying victimization also tended to report low levels of life satisfaction, self-esteem, and prosocial behaviors. Arguably the most interesting finding of this study was the evolution of cyber-victims into cyberbullies. In this context, it can be said that cyberbullying is a contagious and/or learned behavior (Kowalski et al., 2014).

Adolescents are exposed to higher levels of cyberbullying than other age groups. According to one study, the age at which teenagers are the most susceptible to cyberbullying victimization is 12-14 years (Tokunaga, 2010). At the same time, cyberbullying behaviors are relatively common among adolescents (Kowalski et al., 2014). Therefore, it can be said that the adolescence period is risky for both cyberbullying and cyberbullying victimization. Numerous studies have reported in the prevalence studies of cyberbullying among adolescents. In some studies, the prevalence of cyberbullying among adolescents has been found to range between 1% (Allen, 2012) and 79% (König et al., 2010). The large disparity in prevalence rates is likely due to the variety of measurement tools, the lack of consensus on the definition of cyberbullying and cyberbullying victimization concepts, the differences in sampling, and the intercultural differences. Moreover, as technology has become more diversified, the prevalence of cyberbullying is increasing (O'Neill & Dinh, 2015).

Individuals with online antisocial behaviors cause fear, embarrassment and sadness in the victims, and anti-social individuals have low levels of empathy and high level of pride, and experience relaxation after antisocial behavior (Xu et al., 2012). In addition, there are many risk factors for those engaged in carrying out online antisocial behaviors including Dark Tetrad personality traits (i.e., narcissism, Machiavellianism, psychopathy, and sadism) (Ang et al., 2011; Craker & March, 2016; Goodboy & Martin, 2015; Sest & March, 2017; van Geel et al., 2017), traditional bullying (Erdur-Baker, 2010; Gradinger et al., 2009; Ortega et al., 2009), cyberbullying victimization (Den Hamer et al., 2014; Kowalski et al., 2014), hours per day spent online (Mishna et al., 2012), lack of empathy towards others (Brewer & Kerslake, 2015; Kowalski et al., 2014; Sest & March, 2017), peer rejection (Calvete et al., 2010; Wright & Li, 2013), loneliness (Brewer & Kerslake, 2015), insecure attachment (Wright, 2015), and being male (Sourander et al., 2010). Another study by Sourander et al. (2010) reported other risk factors for online antisocial behavior including family structure (families without two biological parents at home), general health problems, and somatic illness, psychosocial problems (hyperactivity problems, emotional problems, conduct problems, peer problems, prosocial problems), alcohol use, being drunk, smoking, not feeling safe in school, not feeling cared for by teachers, and physiological problems (distracting headaches, recurring abdominal pain, and problems with falling asleep).

Antisocial behavior is often observed in online public debates on websites or social media. Methods used to combat antisocial behavior include (i) comment ranking, (ii) moderation, (iii) and early troll identification (Cheng et al., 2017). If comment ranking is performed on social media accounts, the most 'liked' or answered comments appear first on the page by default. Therefore, it is possible to get detailed information about social media users' profile and social media shares via this technique, and online antisocial profiles can be identified by this method. Moderation includes listening and responding to the content of social media accounts or news sites. Here, moderation refers to content and community management where individuals with online antisocial tendencies accessing social media accounts and news sites can be identified and prevented. Troll identification is based on analyzing user shares on websites and identifying trolls. Some sites have even resorted to completely disabling comments (Cheng et al., 2017). Nonetheless, on the majority of popular discussion websites, antisocial behavior continues to be prevalent (Cheng et al., 2017). Increased levels of use and more time spent online accessed through a variety of devices has increased children's exposure to a range of online risks, including cyberbullying (O'Neill & Dinh, 2015). Indeed, dozens of online antisocial behaviors have been conceptualized in the past two decades (Almuhanna, 2017; Álvarez-García et al., 2018; Barber, 2001; Cao & Lin 2015; Cheng et al., 2015; Cheng et al.,

2017; Den Hamer et al., 2014; Liu et al., 2018; Owen, 2016; Peterson & Densley, 2017; Reyns, 2012; Seigfried-Spellar et al., 2017).

There are now numerous psychometric instruments in the literature that assess a variety of online antisocial behaviors including cyber-harassment (Beran, & Li, 2005; Beran et al., 2012; Ybarra & Mitchell, 2007), cyberbullying (Arıcak et al., 2012; Hinduja & Patchin, 2008; Li, 2010; Smith et al., 2008), cyber-aggression (Modecki et al., 2013; Pornari & Wood, 2010; Runions et al., 2013), cyber- trolling (Buckels et al., 2014; Craker & March, 2016), cyber-stalking (Ménard & Pincus, 2012; Paullet, 2010), cyber-hostility (Nicol & Fleming, 2010), griefing (Coyne et al., 2009; Ladanyi & Doyle-Portillo, 2017), cyber-hate (Burnap & Williams, 2016), and cyber-flaming (Hwang et al., 2016). Although some instruments assess similar characteristics, they are named differently. Consequently, a more inclusive concept is needed. The concept of 'online antisocial behavior' more generally offers researchers a holistic perspective. The concept of online antisocial behavior provides a general framework for all these aforementioned behaviors (Almuhanna, 2017; Álvarez-García et al., 2018; Barber, 2001; Cao & Lin 2015; Cheng et al., 2015; Cheng et al., 2017; Den Hamer et al., 2014; Liu et al., 2018; Owen, 2016; Peterson & Densley, 2017; Reyns, 2012; Seigfried-Spellar et al., 2017).

Some online antisocial behaviors have previously been examined via the evaluation of banned internet users (Cheng et al., 2015) and the analysis of content in online environments (Cheng et al., 2017; Kumar et al., 2017). More recently, Likert-type scales have been used in survey research (e.g., Erreygers et al., 2017, 2018). In these latter two studies, a modified scale was used (i.e., the European Cyberbullying Intervention Project Questionnaire; Brighi et al., 2012; Del Rey et al., 2015; Schultze-Krumbholz et al., 2015) to assess online antisocial behavior. Therefore, there is a need for a scale that specifically evaluates online antisocial behavior more generally.

Antisocial behaviors are typically characterized by antisocial personality (APA, 2013). Similarly, online antisocial behaviors can also be characterized by online antisocial personality (Buckels et al., 2014; Craker & March, 2016). Consequently, online antisocial behaviors cannot be considered independent of online antisocial personality, and such behaviors stem from personality patterns. The aim of the present study was to develop and validate the Online Antisocial Personality Scale (OAPS).

Methods

Participants

The present study comprised 447 adolescents (219 girls and 228 boys) from four different samples. The pilot study sample comprised 24 adolescents (10 girls and 14 boys). The scale validity studies were performed on 423 adolescents (209 girls and 214 boys) across three different samples. The scale validity was analyzed using exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and criterion validity. The EFA sample comprised 116 adolescents (58 girls and 58 boys). The CFA sample comprised 111 adolescents (57 girls and 54 boys). The criterion validity sample comprised 196 adolescents (94 girls and 102 boys). In all samples, adolescents were aged between 14-18 years. In the present study, convenience sampling was used to collect the data.

Materials

Online Antisocial Personality Scale (OAPS): In the present study, the OAPS was developed by using the diagnostic criteria for APD in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; APA, 2013). The OAPS assesses antisocial behavior in online environments. The OAPS comprises eight items and one dimension (i.e., online APD), and is rated on a 5-point Likert-type scale (1=not suitable at all, 5=completely suitable). Findings on the validity and reliability of OAPS are presented in a later section of the present paper.

E-Bullyıng Scale (E-BS): The E-BS was developed by Lam and Li (2013) and adapted into Turkish by Gençdoğan and Çikrıkci (2015). It is a one-dimensional scale comprising six items and rated on a 7-point Likert type scale [0=0 times to 6=6 times or more]). The structural validity of E-BS was examined with CFA and criterion validity. As a result of CFA, the E-BS was found to have perfect fit (χ^2=9.34, χ^2/df=1.55, p=.15, RMSEA=.05, CFI=.99, IFI=.99, GFI=.98, AGFI=.93, NF1=.97, SRMR=.03, RFI=.93). The criterion validity of the E-BS was evaluated by using the Cyber Bullying Scale (CBS) (Arıcak et al., 2012). The reliability of E-BS was assessed by Cronbach's alpha coefficient, test-retest reliability, and split-half reliability. As a result of the reliability analysis, the E-BS was found to be a reliable scale. High scores on the scale indicate high levels of cyberbullying (Gençdoğan & Çikrıkci, 2015). The six-item and one-dimensional structure of the E-BS was tested in the present study. High scores on the scale indicate a high level of cyberbullying. As a result of CFA, E-BS was found to have acceptable fit values (except from RMSEA) [(χ^2=30.441, df=9, χ^2/df=3.382, p<.001, RMSEA=.111, GFI=.95, AGFI=.88, CFI=.97, IFI=.97 and TLI (NNFI)=.96]. In the present study, the Cronbach alpha coefficient of the E-BS was .74.

Personality Belief Questionnaire-Short Form (PBQ-STF): In the present study, the sub-dimension of the PBQ-STF Antisocial Personality Belief was used. The PBQ-STF was developed by Beck and Beck (1991) and adapted into Turkish by Taymur et al. (2011). The construct validity of PBQ-STF was examined by EFA and criterion validity. The PBQ-STF comprises 65 items and nine sub-dimensions. The criterion validity of the PBQ-STF was assessed using the Dysfunctional Attitude Scale (DAS-A) (Şahin & Şahin, 1992) and the Temperament and Character Inventory (TCI) (Köse et al., 2004). The reliability of PBQ-STF was assessed by Cronbach's alpha coefficient and test-retest. As a result of the reliability analysis, the PBQ-STF was found to be a reliable scale. High scores on the scale indicate a high level of related subscales (Taymur et al., 2011). The seven-item and one-dimensional structure of the Antisocial Personality Belief subscale was tested in the present study. The CFA results showed that the subscale of Antisocial Personality Belief had acceptable compliance values [(χ^2=40.752, df=14, χ^2/df=2.911, p< .001, RMSEA=.099, GFI=.94, AGFI=.89, CFI=.93, IFI=.93 and TLI (NNFI)=.90]. In the present study, the Cronbach alpha coefficient of the Antisocial Personality Belief subscale was .91.

Procedure and ethics

In the present study, the OAPS was developed using the seven diagnostic criteria for APD in DSM-5 (APA, 2013). The diagnostic criteria of APD were adapted to the online environment with eight items relating to the seven diagnostic criteria. APD's second criterion (i.e., deceitfulness, as indicated by repeated lying, use of aliases, or conning others for personal profit or pleasure) was adapted for online environments and led to the creation of two different types of anti-social deceptive behavior (i.e., deceiving others opening fake accounts, and deceiving others for pleasure). The eight-item draft of the OAPS was examined by five researchers in the field of cyberpsychology. Changes were made to OAPS by taking into consideration the suggestions of the researchers. After the proposed changes were made, the OAPS was presented to the same group again. At this stage, eight-item OAPS was agreed. The OAPS was then examined in terms of clarity via a pilot study. The pilot study was carried out with 24 adolescents. The final version of OAPS was produced following the feedback from the adolescents. The final version of the OAPS and the items' relationship with each DSM-5 criterion for APD are presented in Table 1. Finally, data were collected for the validity and reliability of OAPS.

Ethics committee approval and application permission were obtained before the data were collected. Ethics committee approval was obtained from Fırat University (Turkey). Application permission was given by Elazig Provincial Directorate of National Education. After obtaining ethics committee approval, five high school directorates in Elazığ city center were contacted by telephone to see if they would be prepared to participate in the research and all five schools agreed to help. The schools chosen were those most easily accessible to the research team and therefore the participants comprise a convenience sample. The approval of the administration of the survey was carried out by the third author under the supervision of the teacher in the classroom. In all schools, the surveys were administered in those in grades 1 to 4 (i.e., a total of 20 classes). The aim of the study was explained to the participants, and written informed consent was provided by all participants. The data were collected voluntarily in the classes where the students were educated. Participants' use of online environments was defined as the key selection criterion. Adolescents who did not use the online environments or did not want to participate in the study were excluded. A total of 51 students did not want to participate in the study (89.8% response rate). The data collection process lasted approximately 20-25 minutes.

Data analysis

The structural validity of OAPS was examined using both EFA and CFA. Before starting the EFA, the suitability of the data for factor analysis was examined by the Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett's Sphericity Test. As a result of these analyses, it was found that the data were suitable for factor analysis. Principal component analysis was used in EFA. The structure obtained as a result of EFA was tested with CFA. Prior to CFA, the data were examined for sample size, multiple linearity, multicollinearity, and multiple normality. Given that the data set met the assumptions of CFA, the model was tested with the covariance matrix using the maximum likelihood method. The model fit was examined with χ^2/df, RMSEA, GFI, CFI, IFI and TLI (NNFI) fit indices. Commonly accepted fit indices and acceptable limits for model fit are presented in Table 2 along with a description of each acronym. The criterion validity of the OAPS was evaluated using the E-BS and PBQ-STF (Antisocial Personality Belief subscale). The reliability of OAPS was evaluated with Cronbach α internal consistency reliability coefficient and corrected item total correlation coefficients. The Cronbach α internal consistency coefficient and corrected item total correlation coefficients were calculated in the EFA, CFA, and criterion validity samples. SPSS and AMOS programs were used to analyze the data.

Table 1. *OAPS final form and relationship with Antisocial Personality Disorder*

DSM-5 English*	DSM-5 Turkish**	OAPS-Turkish	OAPS-English
1. Failure to conform to social norms with respect to lawful behaviors, as indicated by repeatedly performing acts that are grounds for arrest.	1. Tutuklanmasına yol açan yineleyici eylemlerde bulunmakla belirli olmak üzere, yasal yükümlüklere uymama.	1. Online ortamlarda yasal sorumluluklara uymam.	1. I do not obey the law in online environments.
2. Deceitfulness, as indicated by repeated lying, use of aliases, or conning others for personal profit or pleasure.	2. Sık yalan söyleme, takma adlar kullanma ya da kişisel çıkarı ya da zevki için başkalarını dolandırma ile belirli düzmecilik (sahtekârlık).	2. Online ortamlarda sahte hesaplar açarak yalan paylaşımlarda bulunurum. 3. Online ortamlarda keyif için başkalarını dolandırırım.	2. I open fake accounts in online environments and share lies. 3. I deceive others for pleasure in online environments.
3. Impulsivity or failure to plan ahead.	3. Dürtüsellik ya da geleceğini tasarlamama.	4. Online ortamlarda kendimi kontrol edemem.	4. I can't control myself in online environments.
4. Irritability and aggressiveness, as indicated by repeated physical fights or assaults.	4. Sık sık kavga dövüşlere katılma ya da başkalarının hakkına el uzatma ile belirli olmak üzere sinirlilik ve saldırganlık.	5. Online ortamlarda başkalarına zarar verecek düzeyde sinirli ve saldırgan davranırım.	5. I act irritably and aggressively enough to damage others in online environments.
5. Reckless disregard for safety of self or others.	5. Kendinin ve başkalarının güvenliğini umursamama.	6. Online ortamlarda kendimin ve başkalarının güvenliğini umursamam.	6. I don't care about the safety of myself and others in online environments.
6. Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behavior or honor financial obligations.	6. Sürekli bir işinin olmaması ya da parasal yükümlülüklerini yerine getirmeme ile belirli sürekli bir sorumsuzluk.	7. Online ortamlarda ekonomik sorumluluklarımı hiçe sayacak düzeyde sorumsuz davranırım.	7. I am so irresponsible in online environments that I disregard my economic responsibilities.
7. Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another.	7. Başkasını incitmesi, başkasına kötü davranması ya da başkasından çalması durumunda aldırmazlık gösterme ya da yaptıklarına kendince bir kılıf uydurma ile belirli olmak üzere vicdan azabı çekmeme (pişmanlık duymama).	8. Online ortamlarda zarar verdiğim insanlara (incitme, kötü davranma, bilgi çalma gibi) karşı vicdan azabı çekmem.	8. I do not feel remorse for the people I hurt (such as hurting, mistreating, stealing information) in online environments.

* DSM-5-English (APA, 2013)
**DSM-5-Turkish (Köroğlu, 2014)

Table 2. *Goodness of fit indices and acceptable limits*

Indices	Acceptable limits
χ^2/df	≤5 acceptable fit, ≤3 perfect fit
RMSEA	≤0.10 weak fit, ≤0.08 good fit, ≤0.05 perfect fit
GFI	.85-.89 acceptable fit, ≥ .90 good fit
AGFI	.85-.89 acceptable fit, ≥ .90 good fit
CFI	≥ .90 acceptable fit, ≥ .95 good fit, ≥ .97 perfect fit
IFI	≥ .90 acceptable fit, ≥ .95 good fit, ≥ .97 perfect fit
TLI (NNFI)	≥ .90 acceptable fit, ≥ .95 good fit

(Brown, 2006; Cokluk, Sekercioglu & Buyukozturk, 2012; Hu & Bentler, 1999; Kelloway, 2015; Kline, 2011; Raykov & Marcoulides, 2008; Meydan & Şeşen, 2011; Schumacker & Lomax, 2004; Schermelleh-Engel et al., 2003, Sümer, 2000; Şimşek, 2007; Tabachnick & Fidell, 2013; Thompson, 2004) (as cited in, Savci & Aysan, 2019) [(χ^2=Chi-Square, df=degrees of freedom, RMSEA=The Root Mean Square Error of Approximation, GFI=Goodness of Fit Index, AGFI=Adjusted Goodness of fit Index, CFI=Confirmatory Fit Index, IFI=Incremental Fit Index, TLI (NNFI)=Tucker Lewis Index (NNFI=Non-Normed Fit Index)]

Results

Pilot study

As noted above, a pilot study was conducted to evaluate the items, instructions, and response options of the OAPS by adolescents. The pilot study was performed with 24 adolescents (10 girls and 14 boys). Feedback from adolescents was obtained from OAPS during the study period. As a result of the study, it was observed that adolescents did not give negative feedback about items, instructions, and response options of the OAPS.

Scale validity

Exploratory Factor Analysis (EFA): The structural validity of OAPS was investigated using EFA. EFA was carried out with 116 adolescents (58 girls and 58 boys). The suitability of the data with EFA was evaluated with the Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett's Sphericity Test. As a result of the analysis, it was found that the dataset was suitable for EFA. The Kaiser-Meyer-Olkin (KMO) coefficient=.84 and Bartlett's Sphericity Test χ^2=371.516, p <. 001). In the next stage, EFA was performed on eight items using principal component analysis. As a result of EFA, a single-factor structure with an eigenvalue of 4.095 was obtained. This single-factor structure accounted for 51.2% of the total variance. The eigenvalue of the remaining seven factors was below 1. Therefore, these factors were not evaluated as structures. In addition, a scree plot was analyzed. When the line graph shown in Figure 1 is examined, it can be seen that the graph continues in a horizontal plane after the first break. Indeed, it is seen that after the first factor, breakage occurs. Finally, the factor loadings of OAPS were examined. Accordingly, the factor load values of OAPS varied between .63 and .78. The scree plot of the OAPS is presented in Figure 1, and the EFA results are shown in Table 3.

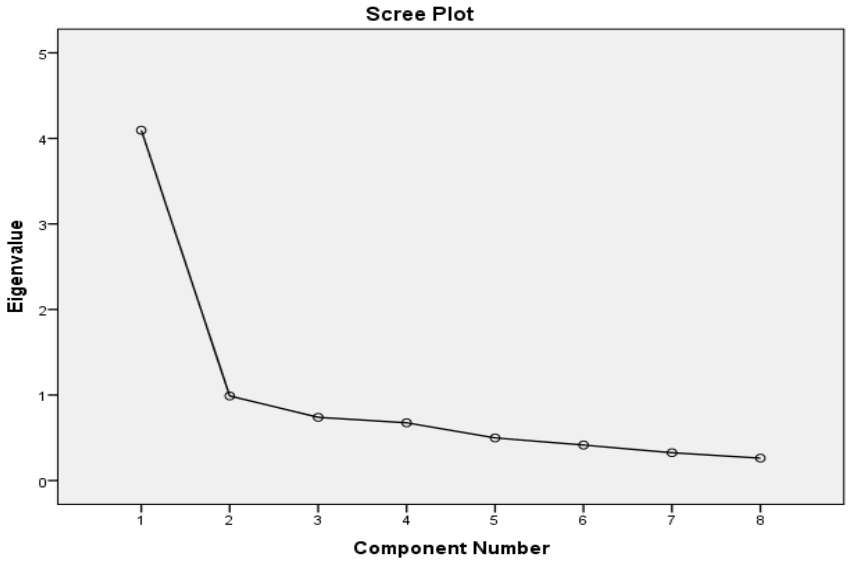

Figure 1. The scree plot of the Online Antisocial Personality Scale

Table 3. *The EFA results of Online Antisocial Personality Scale*

	Items	Factor Loading	% of Variance	Eigenvalue
OAPS	1	.64	4.095	51.2
	2	.63		
	3	.67		
	4	.77		
	5	.71		
	6	.76		
	7	.78		
	8	.75		

Confirmatory Factor Analysis (CFA): The one-dimensional OAPS structure determined by EFA was then tested with CFA. CFA was performed on the data collected from 111 adolescents (57 girls and 54 boys). The OAPS' eight-item and one-dimensional structure were tested with the first-level CFA. As a result of CFA, the OAPS model had perfect fit index values [($\chi^{2=}$32.302, df=20, χ^2/df=1.615, *p*=.04, RMSEA=.075, GFI=.93, AGFI=.87, CFI=.98, IFI=. 98 and TLI (NNF1)=.98]. The factor loadings of the OAPS for CFA ranged between .63 and .91. The model of the OAPS is presented in Figure 2 and Figure 3. The CFA results are shown in Table 4.

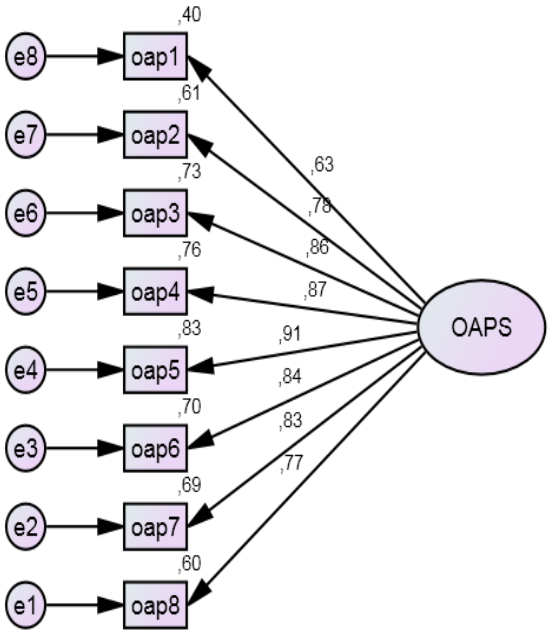

Figure 2. Model of the OAPS in the CFA sample

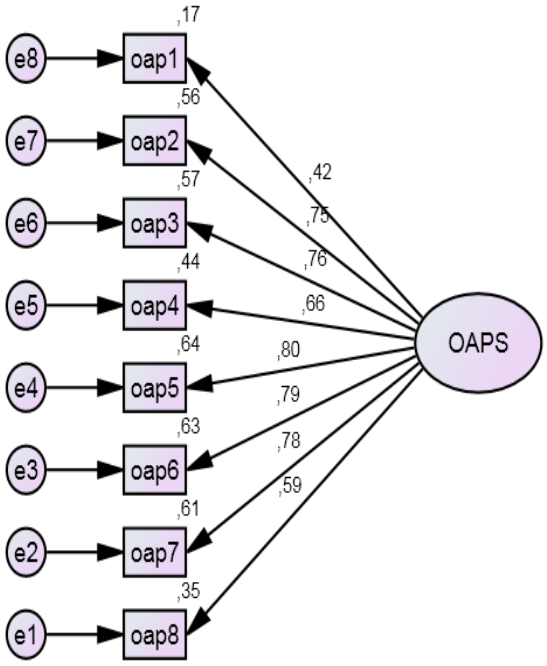

Figure 3. Model of OAPS in the criteria validation sample

Table 4. *The CFA results of Online Antisocial Personality Scale*

	CFA Sample			**Criterion Validity Sample**		
	λ	R^2	*T*	λ	R^2	*t*
OAPS → oap1	.63	.40	6.908***	.42	.17	5,149***
OAPS → oap2	.78	.61	8.889***	.75	.56	8,130***
OAPS → oap3	.86	.73	9.952***	.76	.57	8,175***
OAPS → oap4	.87	.76	10.189***	.66	.44	7,465***
OAPS → oap5	.91	.83	10.755***	.80	.64	8,473***
OAPS → oap6	.84	.70	9.681***	.79	.63	8,424***
OAPS → oap7	.83	.69	9.575***	.78	.61	8,330***
OAPS → oap8	.77	.60		.59	.35	

****p*< .001

Criteria Validation: The criterion validity of the OAPS was evaluated by comparing scores with the E-BS, and PBQ-STF. The criterion validity of OAPS was performed on 196 adolescents (94 girls and 102 boys). Pearson's product-moment correlation analysis showed that the OAPS was significantly associated with cyberbullying (r=.64, *p* <.01) and antisocial personality beliefs (r=.36, *p* <.01).

Measurement Invariance of the OAPS across Three Samples: Measurement invariance of the OAPS was also tested over EFA (n=116), CFA (n=111), and criterion validity (n=196) samples by multi-group analysis. As a result of the analysis, it was found that the OAPS was not significantly different in EFA, CFA, and criterion validity samples (in terms of structural invariance and scalar invariance although not in terms of metric invariance). Structural invariance was tested over the baseline model in which any parameter value was not equalized. As a result of the analysis, the fit indices had acceptable values [(χ^2=158.673, df=60, χ^2/df=2.645, *p*<.001, RMSEA=.063, GFI=.92, CFI=.94, IFI=.95 and TLI (NNFI)=.92]. Therefore, the OAPS was structurally equal in terms of three samples.

In order to test the metric invariance, the factor loadings of the OAPS items were equalized between the groups, and the results of the multi-group CFA were compared with the structural model. Models were compared considering χ^2 and CFI values. For metric invariance, the χ^2 value was expected to be statistically non-significant and the CFI value to be less than .01. As a result of the analysis, metric invariance was not supported (χ^2=59.854,

p< .000 and CFI=.025). The factor loadings of the OAPS items were not equivalent in terms of samples. Finally, the scalar invariance of the OAPS was examined. As a result of the analysis, scalar invariance was supported (χ^2=1.927, *p*=.382 and CFI=.000). Therefore, the OAPS has scalar invariance. Overall, the OAPS had relatively acceptable measurement invariance across three samples. Results relating to measurement invariance of OAPS across three samples are presented in Table 5.

Table 5. *Results of measurement invariance of the OAPS across samples*

	χ^2	df	*p*	CFI	RMSEA	GFI	IFI	TLI (NNFI)
Structural Invariance	158.673	60	.000	.94	. 063	.92	.95	.92
Metric Invariance	59.854	16	.000	.025				
Scalar Invariance	1.927	2	.382	.000				

Scale Reliability

The reliability of OAPS was calculated in three different samples (EFA, CFA, and criterion validity) with Cronbach α internal consistency reliability coefficient and corrected item total correlation coefficient. The Cronbach α internal consistency coefficients of OAPS were .86 in the EFA sample, .94 in the CFA sample, and .87 in the criterion validity sample. The reliability of the OAPS was assessed with item-total correlation coefficients in three different samples (EFA, CFA and criterion validity). Corrected item total correlation coefficients of the OAPS ranged from .52 to .70 in the EFA sample, .62 to .87 in the CFA sample, and .39 to .75 in the criterion validity sample.

Discussion

As the use of technology has increased, online antisocial behaviors have also increased (O'Neill & Dinh, 2015). The aim of the present study was to develop a scale to assess online antisocial personality. In the literature, a wide range of behaviors are considered to be antisocial including cyber-flaming, cyber-hate, online provocation, online antagonism, cyber-trolling, cyber-stalking, cyber-aggression, cyber-violence, cyber-hostility, griefing, computer crime, hacking, and cyberbullying (Almuhanna, 2017; Álvarez-García et al., 2018; Barber, 2001; Cao & Lin 2015; Cheng et al., 2015; Cheng et al., 2017; Den Hamer et al., 2014; Liu et al., 2018; Owen, 2016; Peterson & Densley, 2017; Reyns, 2012; Seigfried-Spellar et al., 2017). It has been argued that the basic framework of such behaviors is online antisocial personality. Numerous studies have evaluated these behaviors from the perspective of online antisocial personality. Therefore, a new scale, the Online Antisocial Personality Scale (OAPS) was developed.

The validity of the OAPS was examined using EFA, CFA, and criterion validity. The criterion validity of the OAPS was evaluated with similar scales. The reliability of OAPS was evaluated with Cronbach α internal consistency reliability coefficient and corrected item total correlation coefficients. The EFA results showed that the OAPS has a one-dimensional structure. The OAPS explained more than half of the total variance (53.5%). In one-dimensional scales, this percentage is sufficient (Buyukozturk, 2010, Cokluk et al., 2012). In the literature, factor loading values are accepted as >.30 (Kline, 1994) or >.32 (Tabachnick & Fidell, 2013). Therefore, the factor loading values of the OAPS were within acceptable limits. The OAPS model was tested with CFA. As a result of CFA, the results showed that the single-factor OAPS model had good fit values. In addition, the measurement invariance of the OAPS was tested across three different samples (EFA, CFA, and criterion validity samples). Measurement invariance of the OAPS was conducted through structural invariance, metric invariance, and scalar invariance across different samples, demonstrating the OAPS had relatively acceptable measurement invariance across different samples (Kline, 1994; Tabachnick & Fidell, 2013).

The criterion validity of the OAPS was assessed by examining cyberbullying and antisocial personality belief. As a result of the analysis, the OAPS was found to be positively related to cyberbullying and antisocial personality belief. The reliability of the OAPS was evaluated using a Cronbach α internal consistency reliability coefficient. In order to evaluate a scale reliably, internal consistency reliability coefficient should be .70 and above (Cokluk et al., 2012). Therefore, it can be said that OAPS has acceptable internal consistency reliability coefficient because it was .86 in the EFA sample, .94 in the CFA sample, and .87 in the criterion validity sample. Finally, corrected item total correlation coefficients of OAPS had acceptable values. Corrected item total correlation coefficients of OAPS ranged from .52 to .70 in the EFA sample, .62 to .87 in the CFA sample, and .39 to .75 in the criterion validity sample. The findings of the present study indicate that the OAPS is a valid and reliable scale for assessing online antisocial personality among adolescents.

The OAPS was developed using the diagnostic criteria of the APD (APA, 2013). In this respect, the OAPS was developed by taking into consideration the accepted APD criteria. The diagnostic criteria of APD are known and accepted all over the world. Therefore, the OAPS can facilitate intercultural research. Furthermore, all the analyses regarding the validity and reliability of the OAPS increased its measurement power.

Strengths, limitations, and future research

Although the OAPS is a psychometrically robust scale, it has some limitations. The OAPS is a self-report scale and therefore has a number of well-known limitations and biases present in any self-report data (Dağ, 2005). The reliability and validity of OAPS was also carried out using non-representative, non-clinical convenience samples of Turkish adolescents. In future studies, the validity and reliability of OAPS needs to be examined using both clinical samples and samples that are more representative of adolescents both in and outside of Turkey. Finally, whether or not the OAPS provides consistent results over time has yet to be investigated. Therefore, OAPS consistency should be examined using the test-retest method. In future research, the OAPS should also be examined using different adolescent samples. Groups of adolescents, especially those that are cyber-provocateurs, cyber-trolls, cyber-stalkers, cyberbullies, cyber-criminals, and hackers, may be appropriate for future OAPS development. In future studies, specific users of the deep web could also be included because such use is associated with illegal activities and organizations. These groups may be more suitable samples for further testing the OAPS. Such online antisocial behaviors are expected to be higher among such samples.

Acknowledgements or Notes

The authors received no financial support for the research and/or authorship of this article.

Authors Contribution Rate

Authors contributed equally.

Ethical Approval

Ethical permission (Day: January 23, 2018; No: 97132852/050.01.04/ -243612) was obtained from the Firat University Ethical Review Board for this research. The authors report that the study was conducted in accordance with the Helsinki Declaration.

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International Journal of Contemporary Educational Research

Volume 11, Number 2, June 2024, Page 219-235 Article Type: Research Article

A Collaboration Project on Education for Sustainability: A Qualitative Evaluation of Professional Development Program for Turkish Preschool Teachers

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Abstract

This article is dedicated to examining a bilateral project established between South Korea and Türkiye with the overarching objective of elevating awareness and endowing preschool teachers with the capacity to embed education for sustainability within their classroom practices seamlessly. For this purpose, a professional development (PD) program was developed regarding the three pillars of sustainability and the 7R themes. Fourteen preschool teachers attended the PD program. Three teachers participated in this case study to reveal teachers' transformations regarding sustainability and early childhood education for sustainability. The data were collected through pre- and post-follow-up interviews and classroom observations. Thematic content analyses were conducted. According to the results, the PD program enhanced and deepened teachers' sustainability knowledge. In addition, teachers could transfer the knowledge from the PD program on education for sustainability into their practice not entirely but acceptably, and they have a chance to reconsider their lifestyle habits regarding sustainability in many areas.

Keywords: Sustainable development, Sustainable development goals, Education for sustainability, Professional development, Preschool teachers

Citation

Elmas, R., Ozturk, N., Kahriman-Pamuk, D., Unal-Cubukcuoglu, H. B., Pamuk, S., Kosan, Y., Guler-Yildiz, T. & Haktanir, G. (2024). A collaboration project on education for sustainability: A Qualitative evaluation of professional development program for Turkish preschool teachers. *International Journal of Contemporary Educational Research, 11*(2), 219-235. https://doi.org/10.52380/ijcer.2024.11.2.607

Received	19.01.2024
Accepted	17.03.2024
Publication	15.06.2024
Peer-Review	Double anonymized - Double Blind
Ethical Statement	This article is the revised and developed version of the unpublished conference presentation entitled "Turkish Preschool Teachers' Professional Development Needs: A Joint Collaboration Project on Education for Sustainability", orally delivered at the NARST 94th Annual International Conference April 7-10, 2021.
Plagiarism Checks	Yes - Turnitin
Conflicts of Interest	The author(s) has no conflict of interest to declare.
Complaints	ijceroffice@gmail.com
Grant Support	This study was supported by The Scientific and Technological Research Council of Turkey (TUBITAK) under Grant No.119N241.

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Introduction

The world is burdened with natural disasters, pandemics, overpopulation, increasing levels of carbon dioxide, poverty, social inequality, pollution, and other environmental problems more than ever before. While the situation brings disquieting future prognoses and uncertainty, it demands a shared commitment to education, empowering the next generation for change (UNESCO, 2009). Sustainable development (SD) can be vital in addressing these complicated issues. SD is rooted in concern for and recognition of environmental, economic, and social problems (UNESCO, 2005; 2006). Education for sustainability (EfS) could contribute to a sustainable future and transform societies for all generations (UNESCO, 2014). For all ongoing EfS, early childhood is accepted as a "natural starting point" since early learning is vital for developing attitudes, shaping knowledge, and taking actions (Akyol et al., 2018; Centre for Environment and Sustainability, 2009; Elliott & Davis, 2009; Engdahl et al., 2023; European Panel on Sustainable Development, 2010; Siraj-Blatchford et al., 2010). As informed and active citizens, children could contribute to SD while actively transforming their homes and preschools (Davis, 2015). Transformative EfS learning could be supported naturally in the classrooms, aligning with current early childhood pedagogies as interdisciplinary learning and participation in communities of action (Robinson & Vaealiki, 2010). Transformative learning, which emphasizes the guidance of past experiences on future behaviors, is a theory that is frequently emphasized in adult education, especially in terms of sustainability (Balsiger et al., 2017; Feriver et al., 2019; Thomas, 2009). The theory developed by Mezirow has various stages, emphasizing the importance of developing awareness of an individual's environment and developing decision-making behaviors that include future cognitive processes due to their experiences (Mezirow, 1996). Transformative learning is often used as the theoretical framework for sustainability in educational research. The main reason for this is that sustainability expresses a philosophy of life and a cognitive change process. The necessity of raising awareness and critical thinking in addition to acquiring knowledge is one of the reasons why transformative learning is a practical approach to ensuring sustainability.

It has previously been established why early childhood EfS is needed (e.g., Davis & Elliott, 2014; Davis et al., 2008; Engdahl & Rabušicová, 2011; Hirst, 2019; Ji, 2015; Kahriman-Öztürk et al., 2012). The existing body of research on EfS suggests that preschool teachers should offer opportunities for children to actively engage in issues about the pillars of sustainability (Choi & Kang, 2019; Davis, 2014; Inoue et al., 2016). Preschool teachers are "significant others" and role models for children, so they should reconsider their capabilities in empowering sustainability principles (Davis et al., 2009; UNESCO, 2008). They are to challenge, inspire, encourage children, organize, and design the environment to reveal children's interests and raise their awareness (Bautista et al., 2018; Sommer et al., 2010). Thus, there is an unambiguous relationship between teachers and dissemination in EfS practices (Inoue et al., 2016; Panatsa & Malandrakis, 2018). Preschool teachers' viewpoints and comprehension of EfS have been shown to influence how they continue their activities in the classroom (Kahriman-Öztürk & Olgan, 2016; Sandell et al., 2005; Višnjić-Jevtić et al., 2022). Teachers are expected to have reflexivity, commitment, and genuine participation while provoking developmental values in children through their actions, attitudes, and models based on EfS (Pamuk et al., 2022; Višnjić-Jevtić et al., 2022). Therefore, teachers' professional development (PD) is an essential aspect of EfS practices to be achieved effectively in early childhood classrooms (Ärlemalm-Hagsér & Sandberg, 2011; Bautista et al., 2018; Nicholls & Thorne, 2017). Moreover, teachers must commit and be motivated to improve EfS practices over time (Boyd, 2020). However, teachers and scientific studies focus on the environmental pillar of sustainability. Davis et al. (2009) mentioned earlier that no intervention studies were conducted in early childhood education towards EfS, and research in the field was related to the environmental pillar of sustainability. Few studies involving interventions have been performed even after many years, which may be one of the barriers to developing effective practices (Alici & Sahin, 2023; Boyd, 2020).

Inoue et al. (2017) argue that each country's national guidelines and targeted PD strategies enhance the implementation of EfS in the early years. Few researchers have been able to draw on the PD of in-service preschool teachers on EfS (e.g., Boyd, 2020; Dyment et al., 2014; Feriver et al., 2016). Changes in habits, practices, and EfS are achievable and depend on PD's structure, content, and sequencing (Feriver et al., 2016). The PD is based on Clarke and Hollingsworth's (2002) model of professional growth (Dyment et al., 2014), and the transformative approach has changed the teachers' confidence, knowledge, and understanding (Borg & Gericke, 2021). The PD characteristics, like the conceptual framework, content, design, and practice process, are crucial to improving teachers' awareness, understanding, and practices on EfS. Although extensive research has been carried out on this perspective, limited studies are interventional, such as action research or experimental studies on EfS conducted with preschool teachers to develop practices on EfS (Güler Yıldız et al., 2021).

The Professional Development Program (ECESDP) Design and Content

The PD program was part of a joint research project on EfS for early childhood education between Türkiye and South Korea. The project aims to boost preschool teachers' awareness and empower them to integrate EfS into their classroom practices. The Turkish and South Korean teams worked together to create a PD program. As expected, SD and EfS are not highlighted in the "National Preschool Education Curriculum" in Türkiye (Ministry of National Education, 2013). Turkish preschool teachers' PD needs were determined by Pamuk et al. (2021) before preparing the PD program. Pamuk et al. (2021) state that most preschool teachers have limited SD knowledge to act. Besides, challenging tasks included creating outdoor learning environments, organizing learning centers, and generating parent involvement activities focused on EfS.

The PD program consists of seven modules with 7R themes (reduce, reuse, respect, reflect, rethink, recycle and redistribute) related to the three pillars of sustainability. The framework provides teachers with guidelines to boost children's positive attitudes, knowledge, and behaviors (Bautista et al., 2018). Two-phase cycle development was used to revise the PD program and the modules. Twenty-eight preschool teachers (14 each) were enrolled in the first two cycles. The study group comprised 14 preschool teachers in the third and main implementation. Teachers followed and discussed the topics, shared their ideas, saved solutions for the sample cases, attended the activities, and answered the assessment questions in the PD sessions. Moreover, they created their action plans on the 7Rs and pillars of sustainability in a peer-learning environment and then shared the products in the final part of the PD program (Figure 1). All three PD programs were executed online due to the COVID-19 pandemic.

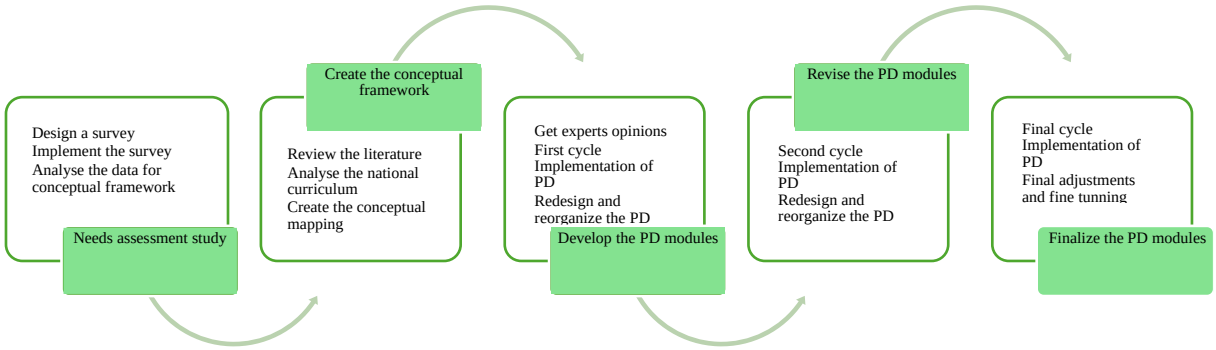

Figure 1. The development process of the PD

The PD's content was divided into five days and 14 sessions when planning the learning process. The PD content is presented above.

Table 1. The PD content.

DAY 1
Session 1 • Meetings and warm-up activities • General information about the project • Principles and rules of online education implementations • General environmental problems and consequences of them • The importance of sustainable development
Session 2 • Sustainable Development • Pillars of Sustainable Development • The Sustainable Development Goals
Session 3 • Education for Sustainability • Preschool Education for Sustainability
DAY 2-Environmental Pillar (Reduce and Reuse)

Session 1

- Beginning time of the day
- Changing areas of our lives
- Definition of reduce and reuse
- Practices related to reducing and reusing

Session 2

- Relationship between MoNE 2013 Preschool Education Curriculum and themes of EfS
- Activity plans related to themes
- Parent involvement activities related to the themes
- Arrangements can be made in the classroom and school
- Usage of outdoor learning environments

Session 3

- Activity samples
- Practices samples
- Selected resources
- Sharing experiences

DAY 3- Socio-cultural Pillar (Respect, Rethink, and Reflect)

Session 1

- Beginning time of the day
- Definitions of respect, rethink, and reflect themes
- The relationship between MoNE 2013 Preschool Education Curriculum and themes of EfS
- Arrangements can be made in the classroom and school

Session 2

- Usage of outdoor learning environments
- Activity plans related to themes
- Parent involvement activities related to themes

Session 3

- Activity samples
- Practices samples
- Selected resources

DAY 4-Economic Pillar (Recycle and Redistribute)

Session 1

- Beginning time of the day
- Definitions of recycle and redistribute themes
- Practices related to recycle and redistribute
- The relationship between the MoNE 2013 Preschool Education Curriculum and the themes
- Arrangements can be made in the classroom and school
- Usage of outdoor learning environments

Session 2

- Activity plans related to the themes
- Parent involvement activities related to the themes

Session 3

- Activity samples
- Practices samples
- Selected resources

DAY 5

Session 1

- Beginning time of the day
- General assessment

Session 2

- Action plans of the three groups as environmental, socio-cultural, and economic pillars of sustainability

Research questions are presented below.

- What did preschool teachers learn from the PD?
- How have the preschool teachers' perspectives about EfS changed after the PD?
- How do preschool teachers' EfS practices develop or evolve after finishing the PD?

Method

This case study focuses on the qualitative results of a sustainability-focused PD program. The needs of teachers in Türkiye (Pamuk et al., 2021) and South Korea have been identified separately, and PD content has been created independently for each country. Researchers from both countries have collaboratively developed PD content, while the PD processes have been conducted independently. While we acknowledge the collaborative nature of the project, this study focuses on Turkish preschool teachers' experiences with the PD. This design helps explore the teachers' views and experiences toward the PD program and EfS practices in their classrooms (Creswell & Plano Clark, 2007).

Participants

Purposeful sampling was implemented in two steps to identify the participant teachers (Creswell, 2015; Johnson & Christensen, 2014).

First Step

The researchers announced the PD program via social media and the project website. After an initial 456 applications, the team selected fourteen participant teachers based on three main criteria: a) being a teacher in a public school; b) having an e-mail address, a computer, and an internet connection; and c) having no previous training on EfS.

Second Step

Four volunteer teachers were determined among the 14 PD participants. The researchers explained their roles as participants in this research to the teachers. Teachers were told that they were expected to participate fully in the PD, that they would be required to produce an example of learning during the PD, that researchers would observe them in the classroom following the PD, and that they would be interviewed three times. Following that, the procedure was explained to the families and the principal of the school. Principals of the schools and volunteer families were chosen in accordance with the volunteer teachers. At this moment, three preschool teachers were selected, and one was eliminated because of not getting consent from parents. These three teachers have worked in different neighborhoods of public preschools in Ankara (Table 2).

Tablo 2. Information about the participant teachers

Teachers	Gender	Occupational Experience	Classroom Size
T1	Women	10 years	16 children
T2	Women	22 years	14 children
T3	Women	14 years	15 children

Data Collection Tools and the Process

Semi-Structured Interviews

Three semi-structured interviews were conducted. The interview questions were developed to explore teachers' existing knowledge and experiences on EfS, effectiveness, evaluation, and the long-term effects of the PD. Before the PD training, a pre-interview was conducted with three teachers to investigate their knowledge, views, perceptions, and practices of EfS, motivations, expectations, and rationale for attending PD. One of the questions, "Could you please explain what you are doing in the context of recycling?" is from the pre-interview. After the PD training, a post-interview was conducted to examine their experiences with PD. One of the questions, "What are your thoughts on transferring the knowledge, experience, and skills you gained through the PD in your classroom?" is from the post-interview. Later, researchers visited these teachers' classes six times over the course of six weeks to conduct random observations. After observations, follow-up interviews were conducted to investigate their views on the effectiveness of PD and how they transfer the PD into their classroom practices and their daily lives. One of the questions is, "What do you recall as the strengths of the professional development program?" from follow-up interviews. All interviews were conducted via the video conferencing software Zoom due to social distance measures at the time of the study (Archibald et al., 2019). The interviews ranged from 14 to 48 minutes, with a mean of 27 minutes.

Classroom Observations

Observations were conducted weekly for six weeks to gather data on the transformational effect of PD. Three different researchers observed the three teachers' classroom practices. Each observation took approximately 3.5–4 hours. The researchers observed interactions between teachers and children, as well as activities, resources, and environmental arrangements, without intervening. As expected, the educational approach to sustainability will be used in versatile and diverse situations, such as the language used in the educational process, the activities implemented, and the educational environment organized. Therefore, researchers who are experts on EfS carried out unstructured observations, considering the elements of interaction, activity processes, environment arrangement, and educational materials. They noted in detail all EfS-related observations throughout the training process.

Thematic Content Analysis

The research team followed Braun and Clarke's (2006) six phases (familiarizing with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report) to analyze the data. Thematic analysis is an appropriate and powerful method for understanding a set of experiences, thoughts, or behaviors in a dataset (Braun & Clarke, 2012). In this study, data were analyzed with thematic content analysis, considering what teachers had known in EfS and original ideas that emerged from the teachers' reflections and shared experiences (Fereday & Muir-Cochrane, 2006). The current study investigates three teachers' views and experiences with different data sources. Braun and Clark's (2006) six phases (familiarizing with data, generating initial codes, searching for themes, reviewing themes, defining, and naming themes, and producing the report) were followed by the research team. Teachers' interviews and observation notes were digitally transcribed verbatim and uploaded to MAXQDA 2022. Three researchers read all the data twice and took notes, and then expressions in the data were coded as relevant to common themes. Codes were collated into potential themes, and data pertinent to the theme was gathered. Finally, three researchers checked internal consistency and discussed, revised, and organized the themes and codes. Based on their shared and different views on content analysis, the final decision was made to name each theme and code.

Ethical Considerations and Trustworthiness

The research has been approved by the ethics committee of the University Ethical Review Board and the MoNE. Each teacher was informed about the research process and consented to attend. The researchers were susceptible to the children and the teachers during the observation process. Each interview and class were numbered to maintain anonymity, and all data was stored in a locked folder on the researchers' computers. For trustworthiness, all data were analyzed independently by the researchers. The codes were compared and discussed to reach an agreement on codes. The researchers revisited the data several times to clarify the codes (Braun & Clarke, 2006). The biases were monitored by considering alternative explanations in the peer debriefing meetings, the

characteristics of the PD program, the participants, and the procedure described in detail for transferability (Creswell, 2015; Patton, 2002).

Results and Discussion

Pre- and Post-Interviews

The pre-post interviews conducted with participant teachers reveal both what they learned from the PD and how the PD changed their perspectives on EfS. Although all teachers reported that they were familiar with the concept of sustainability, their definition was limited to reuse, recycling, or connection with nature at the baseline. After PD, their definitions were detailed and included the three pillars of sustainability.

> *"Sustainability can be defined as minimizing the materials we use daily and using enough to meet our needs at minimum, not only consuming less but also protecting nature for future generations and transferring these skills to future generations." (T3, post-interview)*

Although teachers believed they were familiar with sustainability while defining it, they had limited knowledge and misconceptions, as Effeney and Davis (2013) mentioned. T3's post-interviews shared above can explain the transformation and expanding knowledge of teachers. In the pre-interviews, the teachers stated that they felt sufficient about implementing all the themes except the reflection theme. However, instead of educational practices for sustainability, they mostly referred to daily life experiences. While exemplifying these experiences, they mentioned what could be done rather than what they did. After the PD program, teachers could relate their previous classroom practices to the 7Rs as a sign of transformation.

> *"Reuse is being able to re-evaluate something that we repeatedly use as a material, and when it loses its functions, we should put it into our daily lives. For example, to create flowerpots by cutting the bottom of our used plastic bottles." (T3, post-interview)*

Before the PD, although most of the teachers shared their excitement, some had concerns. These concerns were mostly related to how to transfer the knowledge into practice and convince parents to collaborate on EfS. The factors that motivate teachers to participate in the PD were mainly associated with enhancing their expertise and practices regarding EfS. In addition, the quality of the PD trainers, the familiarity with the concept of sustainability shared by colleagues, and the motivation to empower children, combined with the inspiration drawn from nostalgic memories, collectively encouraged the teachers to participate.

The PD process requires teacher interaction and some tasks in which teachers cooperate in groups, and their views were asked about the planned process in the pre-interview. All the teachers stated they were compatible with group work; they respected different ideas, expressed the importance of peer learning, and defined themselves as cooperative. Indeed, they reported, and it was observed that they learned different ideas and experiences from others and could easily express their feelings and thoughts during training. On the other hand, they said they sometimes had difficulties working with the group synchronously. Especially while preparing an action plan, they could not determine a standard timetable.

Their expectations of PD were to reconsider their lifestyle, expand their knowledge, disseminate what they learned in PD, and evaluate themselves in terms of their daily life behaviors. In the post-interview, all the teachers said that the training fulfilled most of their expectations and would transfer them to their classroom practices. Nonetheless, their recommendations for expanding the PD were that each theme could take a long time and be discussed more comprehensively. It has been seen that some of the teachers still needed to figure out how to involve parents in the EfS process.

> *"In theory, you learn many things, but how do I use that knowledge in practice? Even if I transfer it to the implementation, how do I ensure parent involvement? These issues make me a little nervous." (T1, post-interview)*

They narrated the PD's effects on them, the practical sides, and their thoughts about the activities presented. The beneficial sides of the PD were sharing their ideas and interacting with colleagues, boosting the motivation of teaching, having an action plan with group members, and having an opportunity for self-assessment. Just as Sheridan et al. (2009) articulated, educators articulated that the PD had a discernible impact not solely on their instructional practices but also on their personal lives. They started reconsidering their habits, sharing their new

learnings and experiences with family, friends, and colleagues, and thinking about how they transferred what they learned about EfS into practice. As can be seen, teachers' changes in their EfS perspectives were not only about their educational practices but also about their daily life behaviors.

> *"I think what I felt and did was just a small part of it (sustainability). It is more than I knew. So, did PD affect me? It really impressed me. Before getting it, I wondered whether something was a want or a need. I realized that if I decorated with this perspective, I would save a lot of money. So, I hope that if a teacher raises a teacher's awareness, if s/he raises another's, we will go through such a chain." (T1, post-interview)*

Presenting PD as practice-oriented was adequate for their learning. When they assessed the process of PD, they expressed that including multiple assessments and being practice-oriented were strengths of PD.

> *"As a process, I think that the first evaluation, last evaluation, and the training process in between is a very effective planning process in terms of both our self-evaluation and your evaluation of us, or more precisely, in terms of seeing what the PD contributes to us." (T3, post-interview)*

Teachers expressed that the activities about the 7 Rs were feasible, educational, enriching the context, and effective. Some activities became their favorites from PD content that they could not wait to practice, such as composting, water harvesting in school, and the material used to choose the learning centers with children's preferences in class.

Follow-Up Interviews and Observations

Follow-up interviews and observations in teachers' classrooms reveal a deeper and broader understanding of how their EfS practices evolved after PD. Teacher follow-up interviews revealed that PD produced broader effects and transformations over time. Teachers shared that PD impacted not only their lives or classroom practices but also their family members.

> *"As a mother, I see many effects on my son. So, he started sorting bottles at home. He started using it, saying let us not throw it away because I would put something in the toy box. Believe me, I can see the reflections very clearly in my classroom, at home, and around me. I can say it." (T1, follow-up interview)*

The teachers stated that they developed many good habits and that their responses mainly included the PD's impact. Self-regulation, enhancing classroom practices, parent involvement, reuse, reduce, rethink, respect, and redistribute were coded as their positive gains.

> *"The PD affected the children in my class and the parents. I am getting a couple of complaints from the parents right now. They say they could not throw anything at home because of me (laughing). A parent said I used to buy less in order not to carry heavy weights; thanks to you, now I buy two kilograms of tomato paste. Frankly, I think there is such awareness among parents... After working with children on recycling, sustainability, and upcycling, they noticed the recycling symbol on the water bottle." (T1, follow-up interview)*

Like T1's views, classroom observation showed that she put the recycling symbols on the board and discussed them with the children. She prepared the classroom environment, using the resources of ÇEVKO (Environmental Protection and Packaging Waste Evaluation Foundation) and TEMA (Turkish Foundation for Combating Erosion, Afforestation, and Conservation of Natural Assets), about the recycling signs and what can be done for zero waste (Figure 2). Children shared their opinions about the recycling signs on the board and whether the waste was garbage or not. They talked about appropriate behavior for sustainability in the zero waste alphabet, for example, the "A" letter as not throw away, reuse ("A"tma, değerlendir in Turkish) (Figure 1; December 20, 2021). T1 explained to the researcher that "I always cared about nature activities, but it was good to learn that sustainability consists of such interrelated issues." It stated that their practices developed in line with PD.

Figure 2. Recycle activity observed on December 20, 2021

Like the post-interview as personal effects of PD, it helped to expand their awareness and knowledge about sustainability, share with colleagues what they learned in PD, and reconsider sustainability-related lifestyles, such as reusing materials and reducing consumption.

> *"I mean, you experience it in person... My colleagues were constantly asking me about the project. I caught their attention by explaining sustainability to them. I think we have created awareness. Personally, my perspective on the environment has changed a bit. I mean, I realize how many recycling bins or how many clothing bins I pass by. I started seeing them." (T2, follow-up interview)*

Some teachers mentioned the potential development zone of PD, as they did in post-interviews. Different from the post-interviews, one of the teachers emphasized that all teachers who participated in the PD would be observed with these words.

> "*For example, three teachers' classrooms in Ankara were observed, but more teachers participated in this project. Maybe it would be better to examine whether others could transfer to their practice or not." (T3, follow-up interview)*

It was found that the teachers were impressed mainly by the participants' and trainers' shared memories. The teacher explained her memory from the PD as follows:

> *"For example, a good practice was shared by a PD participant. She has worked on reducing the paper usage method as an activity. I think I would use it in my class in the future." (T3, follow-up interview)*

The teachers remembered the content they received in the PD and planned to integrate the 7R themes with the program in their practices. Teachers stated their favorite activities as persona dolls, compost, and Pilkelet (a skeleton made of dead alkaline batteries) in the context of PD. During the classroom observations, one of the teachers implemented a Pilkelet activity with children (Figures 3 and 4; December 17, 2021). The dialogue between the teacher and the children during the observation followed as follows:

> *"T1: What do you think we should do with empty batteries?*
> *Child: We throw it in the battery box, then we use a new one.*
> *T1: Yes, we should not throw it away. There should be a separate box for the batteries; then, we can take them to municipalities or shopping malls and throw them in the big battery box. Then, let us do an activity as battery collectors at home. Let us make a Pilkelet; instead of a skeleton, let us use dead batteries. Everyone should bring their dead batteries; let us stick them on the skeleton we will make."*


Figure 3. Pilkelet (skeleton) activity observed on December 17, 2021

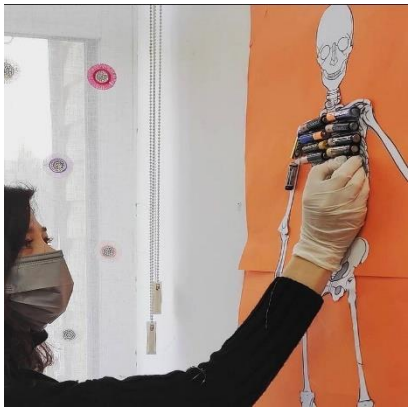

Figure 4. Posted by T3 on December 28, 2021

The teachers stated that the 7Rs, which reflect the themes, and the three pillars of sustainability were the remaining conceptual structures of the PD. It was said that respecting and loving all creatures and behaving respectfully with their lives, needs, past, and future is essential.

> *"Love of nature, love of people, love of animals, loving ourselves, loving children, leaving a more liveable world to future generations, meeting their needs while meeting our own needs without consuming them, meeting the needs of future generations without consuming them, I saw that the most important of them is human." (T2, follow-up interview)*

It was observed that the teachers transferred the content of PD to their educational process and embodied it in their activities. In T2's classroom, it was noted that the teacher repaired the broken wooden chair with the children (reuse), the protection of the living rights of living creatures in nature (respect) was often emphasized, and the importance of using water resources carefully (reduce) was discussed. They (the teacher and children) went to an acorn tree. The teacher put the "Meşe Palamudu (Acorn)"-named book into the tree (Figure 5; November 3, 2021). Brief dialogues with the teacher and children as given:

> *"T2: Look at how they are like each other.*
> *After that, the children collected the acorns from the ground and brought them to the detected area by the teacher.*
> *C: We found mushrooms.*
> *Then, all the children and the teacher went to the spot to explore the mushrooms.*
> *T2: Yes, mushroom! It could be poisonous. Be careful not to step on them so that they sustain their existence and lives.*
> *T2: What you see is a tiny acorn tree. Fallen acorns become seedlings. That is why it is not appropriate to take acorns from their habitat.*

After, one of the children saw the dog poop.
C: It is so bad.
T2: This is natural. Children!Animals have basic needs like us. Be careful not to step up. They become fertilizer for the soil and blend with nature."

Figure 5. Acorn Activity Observed on November 3, 2021

Discussion

We will discuss how the teachers' experience with PD enabled them to enhance their classroom practices and their EfS perspectives. In the last decade, significant numbers of studies have revealed that teachers' PD needs are enormous in EfS (Pamuk et al., 2021; Sheridan et al., 2009; Tolstikova et al., 2021). It is known that teachers' knowledge and practices about a subject are highly related to their professional competencies (Neuman & Cunningham, 2009; Arrow & McLachlan, 2014). The current study mainly aimed to understand the effect of transformative PD on teachers' knowledge and classroom practices on EfS because effective PD provides teachers with opportunities to enhance their pedagogical knowledge, professional confidence, and educational practices (Darling-Hammond et al., 2017).

Previous studies demonstrated that preschool teachers are unfamiliar with EfS while having familiarity with concepts of environmental or natural education (Ärlemalm-Hagsér, 2017; Inoue et al., 2016). In this study, in pre-interviews, most teachers assumed they were familiar with sustainability, but their definitions did not include the sociocultural and economic pillars of sustainability. We realized teachers' knowledge and practices were limited to the environmental pillar. The fact that most of the studies on EfS have focused on the environmental pillar of sustainability for years (Güler Yıldız et al., 2021) can be an indication that the concept of sustainability is mainly associated with environmental issues. After the PD, it was explicitly presented that teachers' definitions started to include three pillars of sustainability from a holistic perspective. Borg and Gericke (2021) reveal that teachers' understanding was focused on the environmental perspective before training, and the teachers' knowledge was extended similarly to this study. The content of PD holistically includes three pillars of sustainability that contribute to its effectiveness, and teachers' views on PD also support this. Previous studies demonstrated that preschool teachers are unfamiliar with EfS while having familiarity with concepts of environmental or natural education (Ärlemalm-Hagsér, 2017; Inoue et al., 2016). On the other hand, this study's finding contradicts the previous study, which suggested that a few teachers are familiar with EfS after training, workshops, and so on (Park et al., 2016).

Besides the concept and definition of sustainability, teachers were also enlightened about the 7R themes recommended in early childhood EfS by OMEP (Duncan, 2011). Our interview results indicated that teachers have an example of the 7 Rs from their daily lives, and most felt sufficient in the "recycle" theme while none felt sufficient in the "reflect" theme. After PD, like the findings of Wang et al. (2019), teachers developed their own understanding of each theme and planned and implemented practices about the 7Rs in their classes. Before PD, they mostly implemented "recycling" in class, and it became varied. Implementing each theme of the 7Rs can be difficult in early childhood education (Kahriman-Öztürk et al., 2012). Especially the socio-cultural pillars ("respect,", "reflect," and "rethink") can be more difficult due to being more abstract than other themes (Borg & Gericke, 2021; Wang et al., 2019). Observations showed us that teachers integrated their classroom practices with

all the pillars. Teachers implemented activities about the 7Rs in their daily schedules because the PD contained various practice examples for each 7R and prepared activity assignments about the pillars of sustainability. EfS PD programs aim to transfer knowledge, making them naturally more "transmissive" (Popova et al., 2016), and we consider PD to be a driving force for EfS (Choi & Kang, 2019).

At the end of professional support, it is expected to sustain positive change in knowledge, practices, and daily life routines (Welch-Ross et al., 2006; Sheridan et al., 2009). This lifestyle change is one of the most valuable findings of this study because teachers are also learners of PD. Teachers reported a shift in their consumption habits, with increased consideration for sustainability in their daily routines. Some took the initial step of reducing consumption, while others planned to compost. Teachers evaluated their behaviors and became aware of actions or thoughts that could potentially harm the environment. They felt responsible for sharing their knowledge with their families, friends, colleagues, children, and parents. According to Goleman's study (2010), most teachers think that what they can do individually will not be effective in solving global problems, and their knowledge about how to make a difference in sustainability is insufficient. In the PD, teachers were also learners. EfS education could increase learners' behaviors, values, and emotions (Birman et al., 2000; Mogensen & Schnack, 2010). It should not be forgotten that adults who grew up in a more democratic, natural, and environmentally sensitive atmosphere in their childhood have higher awareness, sensitivity, and social-emotional skills on sustainability issues (Charatsari et al., 2022; Hill et al., 2014; Louv, 2008).

PD could also occur in an informal context, such as peer observations and collegial dialogues (Mizell, 2010). In this study, preparing an action plan is a struggle for the teachers as group work. It can be the reason for not finding a common time to work together due to online training, or maybe they did not have enough experience preparing an action plan. Teachers pointed out that they learn different classroom practices from other participants. It could be said that discussions and sharing ideas were more useful than preparing an action plan. Notably, they used all the pillars of sustainability in their expressions in classroom practice. In the study of Summers et al. (2003), it was concluded that teachers' knowledge about sustainability and self-confidence in planning and implementing EfS improved after PD. We could say that PD plays an essential role in teachers' EfS practices while considering the teachers' interventions in the routines.

Conclusions, Recommendations, and Limitations

The current study reports on the results of a research project that investigated the effectiveness of teachers' participation in a PD program. In the PD, classroom practices are purposefully linked to EfS, bridging theory and real-life learning practices and allowing open discussions and exchanging ideas and thoughts. It can be concluded that PD has shown the potential of a well-designed teacher PD program to introduce EfS. Well-designed and holistic PD could improve teachers' knowledge and classroom practices about EfS. Mitchell and Cubey (2003) suggest the characteristics of an effective PD that incorporate participants' understandings of the context, help change participants' beliefs and practices, develop their critical thinking and self-assessment skills, and investigate pedagogy within their own early childhood settings. In this regard, the developed PD in this study encouraged participants to share their beliefs, knowledge, and experiences; transformed their way of thinking and their practices; had multiple assessments; and was practice-oriented. Researchers believe all these characteristics promote the effects of PD on teachers.

Although this study offers valuable insight into PD programs and EfS, it has some limitations. This study was limited to a semester, and the observations provided a snapshot of teachers' practices due to the nature of the research project. Fullan (2004) pointed out that the expected outcomes of PD not only included short-term but also long-term effects. Future studies might be designed as a time-series design or longitudinal design to justify the effectiveness of PD. Another limitation is that preschool teachers who have shown their commitment to EfS through voluntary participation in PD might be more likely to pay attention to EfS practices. The findings must be examined with this commitment in mind. A significant limitation is that the study only addresses changes in teachers' knowledge and classroom practice. Guskey (2000; 2002) points out that higher levels of PD evaluation consider the impact on children's learning in the classroom. However, we do not know the effect of PD on children. In future studies, children's outcomes might be considered to enhance the findings and evaluation of PD. The MoNE 2013 Preschool Education Curriculum in Türkiye has been recently updated. Based on the revised curriculum, training that will support teachers in integrating EfS practices with the program can be provided extensively.

The international literature on EfS inspired the PD program's content and framework, even though this study was carried out in a Turkish context. The PD program and the current study's findings are timely, particularly in addressing achieving the SDGs (UNESCO, 2019). EfS in Türkiye, which suggests all preschool teachers receive a PD program to embed EfS principles and pedagogy in their program and classroom practices in an integrated manner.

Authors Contribution Rate

Rıdvan Elmas: Design of the research, Consulting, Audit, Data Analysis, Writing and Editing (%20)
Naciye Öztürk: Data collection, Data analysis, Writing and Editing (%18)
Deniz Kahriman Pamuk: Design of the research, Consulting, Review and Editing (%16)
Hazal Begüm Ünal Çubukçuoğlu: Data collection, Data analysis, Writing and Editing (%13)
Savaş Pamuk: Design of the research, Review, and Editing (%10)
Yekta Koşan: Data collection, Data analysis, Writing and Editing (%10)
Tülin Güler Yıldız: Design of the research, Consulting, Review and Editing (%8)
Gelengül Haktanır: Design of the research, Consulting, Review and Editing (%5)

Ethical Approval

Ethical permission (Day: May 28, 2019; No: 35853172-600) was obtained from the Hacettepe University Ethical Review Board for this research.

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International Journal of Contemporary Educational Research

Volume 11, Number 2, June 2024, Page 236-249 Article Type: Research Article

Teachers' Strategies to Alleviate Speaking Anxiety and Foster Willingness to Communicate among EFL High School Students

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Abstract
This research paper delves into the origins of English as a Foreign Language (EFL) speaking anxiety in Moroccan high school students and offers potential remedies to reduce or prevent its occurrence, with a particular emphasis on encouraging a willingness to speak. The study involved 37 high school teachers who completed a questionnaire regarding their strategies to mitigate speaking anxiety and promote communication willingness among Moroccan EFL high school students. The data was collected and analyzed using SPSS. The findings reveal that anxiety stems from various factors, including linguistic issues (such as limited vocabulary, grammar challenges, and fluency), personal factors (such as learner personality and motivation), and teacher-related factors (including feedback quality and classroom activities). Moreover, the research suggests that teachers should prioritize strategies like providing positive feedback, offering praise, and incorporating collaborative work or task-based learning to reduce students' EFL speaking anxiety. Additionally, teacher participants proposed additional strategies focused on a variety of activities and methods to foster a welcoming classroom atmosphere.

Keywords: Communication, Speaking anxiety, Students, Teachers, Willingness.

Citation
Khoudri, I. (2024). Teachers' strategies to alleviate speaking anxiety and foster willingness to communicate among efl high school students. *International Journal of Contemporary Educational Research, 11*(2), 236-249. https://doi.org/10.52380/ijcer.2024.11.2.608

Received	15.01.2024
Accepted	27.04.2024
Publication	15.06.2024
Peer-Review	Double anonymized - Double Blind
Plagiarism Checks	Yes – iThenticate
Conflicts of Interest	The author(s) has no conflict of interest to declare.
Complaints	ijceroffice@gmail.com
Grant Support	The author acknowledges that she received no external funding in support of this research.

Introduction

The challenge of communicating in English as a non-native language has been a notable hurdle for many Moroccan students over the years. It's important to note that Arabic and French have traditionally been the main languages of instruction in Moroccan educational institutions. While English is introduced in middle school, it remains a source of anxiety for many high school students when it comes to speaking the language (Buckner 2011). This is because they view English neither as their native tongue nor as something taught from a young age. Usually, a language is learned to express ideas and thoughts when the need arises. Nonetheless, the lack of opportunities to practice speaking within and outside the classroom, coupled with a negative classroom atmosphere, adverse feedback, sensitivity to peer evaluation, or even ridicule, all contribute to difficulties for learners and impact their future participation in similar scenarios.

Due to increased stress, negative feelings, and a lack of confidence in their ability to explain oneself clearly, language learners who internalize a higher degree of speaking anxiety in a foreign language are more likely to have limited communication (Wijaya, 2023). The role of teachers in shaping the learning process is of paramount importance. The relationship established with students, the employed methods, strategies, and classroom activities collectively influence and mold learners' attitudes towards language acquisition and usage. Teachers often lament students' apparent laziness and lack of confidence. However, it's worth noting that some students are not inherently lazy but rather disengaged due to unstimulating tasks or teaching methods that do not align with their learning preferences. Furthermore, diminished self-confidence isn't solely a characteristic of students; it can be induced by the learning environment, which encompasses both peers and teachers.

A stringent teacher who does not tolerate mistakes restricts students' opportunities for self-expression, while the experience of mockery from classmates diminishes the likelihood of active participation in classroom activities. In reality, a majority of high school students endure these challenges in silence, hesitating to voice their struggles with spoken English. Some teachers are cognizant of the difficulties students face and either seek remedies or display apathy. Conversely, certain teachers might remain oblivious to the high levels of apprehension their students' experience, resulting in a lack of proactive efforts from their end. Similarly, Mulyono et al. (2019) acknowledged that uncontrolled anxiety associated with speaking a foreign language can have a negative impact on EFL learners' speaking abilities, achievement, and current motivation levels, which can then affect how well they communicate effectively moving ahead.

In the current world, the ability to speak becomes a crucial skill that second language learners must thoroughly grasp. Proficiency in speaking can significantly impact learners' future involvement in the professional sector (Wijaya, 2023). Put differently, people who are proficient in expressing themselves in English as a Foreign Language (EFL) will discover that their chances of success in professional settings are increased due to their self-confidence while using it. Certainly, teachers hold a pivotal role, particularly in motivating students to employ language communicatively, given the heightened demand for English usage across various domains and contexts. Regrettably, research concerning the participation of teachers and their strategies to address speaking anxiety within high school classrooms remains scarce and has not received the attention it warrants particularly in Morocco, especially when compared to studies conducted in higher education settings. Also, most teachers' contributions focus on only the causes while their lack of research on which best strategy worked for decreasing students' anxiety and improving students' communicative skills. Consequently, this study aims to explore the best strategies employed by teachers to mitigate speaking anxiety and foster a proactive willingness to communicate within the classroom.

To achieve this objective, the researcher aims to address the following questions:

- To what extent do teachers observe indications of anxiety among their students during speaking activities?
- What causes speaking anxiety in an EFL classroom?
- What are the prevalent strategies employed by teachers to alleviate speaking anxiety among their students?

Literature review

Foreign language speaking anxiety

Individuals employ language as a means to convey their emotions, thoughts, viewpoints, and wants (Narkulova & Petrosyan, 2023). Language and human emotions and behaviors are closely related. This suggests that language is a means by which we convey our emotions as we go about our everyday quest for knowledge. Every person uses language to express their opinions, desires, and feelings during any type of conversation or dialogue. As foreign language learners, one of the linguistic abilities that they must adeptly acquire is verbal or oral communication, in addition to listening and writing (Damayanti & Listyani, 2020). Engaging in activities such as participating in class discussions, responding to questions, voicing opinions, and joining discussions can enhance students' speaking abilities (Rosmayanti et al., 2023). However, Rahmat (2020) pointed out that EFL students are faced with challenges when acquiring effective communication skills such as anxiety. Indeed, the issue of language speaking

anxiety has received a lot of attention in recent years, largely due to the expanding field of learner psychology (Chahrazad & Kamel, 2022). Arnold and Brown (1999) state that anxiety is linked to negative emotions such as restlessness, self-doubt, fear, and tension that hamper learning. According to Melanlıoğlu and Demir (2013), speaking anxiety can be evident emotionally, causing sensations of sadness, anger, and fear, while also having physical manifestations like a rapid heartbeat and sweating. Foreign Language Speaking Anxiety (FLSA) is a complex psychological phenomenon that many language learners undergo when acquiring proficiency in a foreign language (Bashori, 2022). English has become a necessary skill in modern life; however, it is noteworthy that students regularly run into problems with the availability of adequate educational resources designed to foster their proficiency in the English language. As a result, this circumstance may lead to a failure to develop effective English language abilities. Damayanti and Listyani (2020) claim that the fear of making errors stands as a determinant in hindering the process of engaging in spoken communication within a foreign language context. According to Horwitz et al. (1986), anxiety constitutes a sensation of inner restlessness, individually sensed, and marked by a state of tension, apprehension, nervousness, and the conscious recognition of worrisome thoughts. In fact, ordinary or moderate levels of anxiety can manifest when individuals confront novel situations. However, an overwhelming excess of anxiety possesses the capacity to impede an individual's capacity to engage in any form of action. Anxiety is not classified as an illness; rather, it embodies a particular form of behavior aimed at preparing for forthcoming unforeseeable circumstances (Damayanti & Listyani, 2020).

According to MacIntyre and Gardner's (1991) research work, there are three categories that make up the concept of anxiety. The first category is trait anxiety, which refers to a person's innate propensity to feel anxious in a variety of situations, sometimes even when there are not any obvious causes for stress. The next category is state anxiety, which appears in reaction to a variety of stressors, including trepidation like the fear of participating in oral readings. The taxonomy also distinguishes situation-specific anxiety, which is anxiety that is triggered by certain contextual conditions or occurrences, such as giving a speech in front of an audience. Therefore, in the context of learning English as a foreign language, the concern about speaking fluency might be described as a manifestation of situation-specific anxiety. In teaching speaking skills to non-speakers of the target language, teachers encounter several challenges. Ur (1996) delineated four prevalent challenges in the context of language acquisition. Firstly, inhibition arises when a speaker is faced with the need to communicate with an audience but is plagued by concerns about potential errors, fear of criticism, or the possibility of losing face, thereby experiencing feelings of shyness. Secondly, the phenomenon of lack of a clue about what to say manifests as students frequently express their frustration over their perceived inability to generate meaningful discourse. Thirdly, the issue of low or lack of participation emerges when certain students in a group sporadically engage in discussions, leaving others with limited opportunities to express themselves, possibly participating for only brief periods. Lastly, the utilization of the mother tongue, or L1, poses a challenge, as students often opt for this familiar linguistic medium due to the perceived ease of communication it offers, especially in group settings where the primary aim is to practice the target language.

Factors Causing Foreign Language Speaking Anxiety

Horwitz et al. (1986) asserted that the onset of anxiety can be attributed to three distinct catalysts: communication apprehension, fear of negative evaluation, and test anxiety. First, communication apprehension encompasses a sense of unease or discomfort associated with engaging in language communication owing to one's limited proficiency in the language. Second, fear of negative evaluation, a greater concern about how one is regarded by others is a sign of anxiety brought on by the fear of negative judgments by others. There is a pervasive propensity among foreign language learners to assume that others would evaluate them critically when they introduce themselves. This projection frequently includes the idea that any evaluation, particularly one that focuses on linguistic mistakes in oral expression, can potentially hamper their language learning. Third, in test anxiety, in a variety of test situations, students frequently experience increased pressure and anxiety. It stems from a fear of failing, particularly when speaking orally. A strong fear of failure may make it difficult for anxious pupils to properly engage in their language learning process in foreign language classes. Therefore, individuals might not see the process of learning a language as a positive way to improve their communication abilities (Zabidin et al., 2023). In a parallel vein, Rajitha and Alamelu (2020) articulated that the magnitude of speaking anxiety is influenced by both intrinsic and extrinsic factors. Internal factors encompass stage fright, where the fear of speaking or performing in front of a crowd triggers a sense of apprehension on stage. Another factor is the absence of self-assurance, linked to deficiencies in the second language (L2), restricted vocabulary skills, struggles with phonetic enunciation, and challenges with grammatical structures. These aspects collectively lead to diminished self-confidence and markedly influence students' academic progress. Additionally, shyness plays a role, as individuals exhibiting shyness often encounter elevated anxiety when tasked with using the target language. Moreover, Damayanti and Listyani (2020) contend that students who experience elevated levels of anxiety throughout the learning journey tend to receive subpar grades. Thus, the anxiety associated with speaking directly

correlates with oral performance and speaking accomplishments. Furthermore, among the external influences, certain factors stand out, including language-related aspects such as limited vocabulary, lack of fluency, inadequate expression, and uncertainty about word usage. Grammar also plays a role, with challenges in sentence structure and grammar errors. Additionally, pronunciation can be an issue, involving either mispronunciation of words or a lack of precision. The presence of peers can also contribute, as the fear of being ridiculed or mocked for language use can further amplify these difficulties. Based on the view of Abrar et al. (2018), certain students are concerned about potential judgment or criticism from their teachers. This apprehension can erode their self-confidence and lead them to believe that it impacts how they are perceived by others. Consequently, it is plausible to suggest that tutors can inadvertently contribute to students' anxiety by providing detrimental and unconstructive feedback. In a corresponding manner, findings from Gearing (2019) research emphasize that the classroom environment, teaching methodology, and the value attributed to the target language collectively contributes to dissuading students from acquiring language skills. Consequently, it becomes crucial for educators to acknowledge the far-reaching influence of their classroom practices, which encompass teaching approaches, tactics, and activities conducted during lessons. These factors significantly influence students' apprehension towards speaking the language and influence their likelihood of engaging in future language opportunities. Kristie (2018) asserts that students who suffer from a dearth of motivation and self-assurance display a reluctance to engage in communication and consequently struggle to attain proficiency in speaking skills. Consequently, there is an immediate necessity to explore strategies to aid students in becoming more willing to actively engage in classroom communication.

Strategies for Students' Willingness to Communicate

According to MacIntyre et al. (1998), Willingness to Communicate (WTC) in second-language acquisition was characterized as a readiness to participate in conversation at a specific time with specific people, using a second language. They discovered that second language WTC alters depending on the conversational partner, changes over time, and varies in different settings (Zarrinabadi et al., 2023). Fundamentally, the inherent unpredictability of WTC stems from the intricate interplay of various environmental, psychological, and linguistic components. WTC demonstrates a complex connection with individual personality traits, the dynamics within groups, speaking skill level, and attitudes between different groups. Previous studies (Amiryousefi 2018; Cao 2014; Peng, 2014) have shown that teachers, among other contextual factors, have a major impact on how willing students are to communicate (WTC). Teachers can help their students through providing needed support and guidance, putting off correction of mistakes, and providing students enough time to think before speaking (Zarrinabadi, 2014). Besides, engaging with teachers in interactions is recognized as a crucial avenue for enhancing learners' perceived ability to communicate effectively (Peng, 2014). A positive classroom atmosphere promotes a greater WTC and mitigate feelings of anxiety (Khajavy et al., 2018). Tavakoli and Zarrinabadi (2018) believe that instead of explicit corrective feedback, teachers who provide implicit feedback to their students help improve their ability to use the second language (L2) and their WTC. Muslem et al. (2019) contend that in order for L2 speaking learning environments to be effective, a culture of consistent positive feedback, praise, and a welcoming environment must be fostered. This method seeks to the greatest extent feasible to increase learners' proficiency, confidence, and motivation in learning the target language. According to the finding of Zarrinabadi et al. (2023) praising effort led to the development of growth mindsets, a higher WTC, enhanced perception of communication proficiency, and a reduction in anxiety. Harmer (1991) proposes three strategies that teachers can utilize to motivate students to engage in communication: using prompts to assist students in their thinking process rather than letting them struggle, employing teacher animation to aid students in conveying their intended information, and offering feedback, particularly constructive feedback, at appropriate moments and in effective ways. Wijaya (2023) asserts that two strategies can alleviate foreign language speaking anxiety which is incorporating innovative L2 speaking learning activities and creating enjoyable L2 speaking learning environments. Narkulova and Petrosyan (2023) suggest that in order to diminish adverse effects and foster a relaxed teaching atmosphere, teachers should incorporate a diverse range of activities. These activities include games, role-playing, collaborative group work, and task-based language teaching, with an emphasis on communicative and collaborative learning approaches. In this context, teachers adopt roles as moderators and facilitators. Various researchers have also put forth teaching methods to alleviate students' anxiety related to speaking, promoting their use of the target language. Having students involved in tangible and interactive learning resources in the presence of heterogeneous learners in order to practice the second language speaking skills (Ningsih et al., 2018). Storytelling enables students to gain greater emphasis on the correctness of speech, smoothness of expression, tone, intonation, body language, and facial expressions during speaking activities (Wijaya, 2023). Drama's main aim is to entertain, thus, EFL learners notably enhance their L2 communication skills by regularly presenting effective speech in front of many viewers (ibid). Educational technology is a way to enable students to develop soft skills (Ellah & Azmi, 2023; Bashori et al., 2022). In the 21st century, EFL learners find it equally important to cultivate both soft skills and hard skills (Ellah & Azmi, 2023). All of these strategies contribute either directly or indirectly in decreasing students' anxiety, while they boost their self-confidence and positively influence their academic performance.

Method

Participants

The study involved 37 high school teachers from Morocco who work in public schools. The participants included both males and females, as well as novice and experienced teachers. These teachers are situated in the Taounat region, which was chosen due to the fact that most of its students come from rural backgrounds and have limited proficiency in learning foreign languages. This situation is exacerbated by the fact that many of their parents lack education and are unable to provide substantial support in their language learning endeavors.

Instrument

In this research, a quantitative approach was employed to investigate the methods employed by educators to enhance the confidence and openness in communication skills of Moroccan high school students. The research design utilized in this study is descriptive, aiming to provide a comprehensive insight into the subject matter. To collect relevant data, a well-structured questionnaire was developed, drawing inspiration from prior research findings. Participants were provided with access to this questionnaire through various online channels, including email and WhatsApp. This approach was adopted to efficiently gather valuable data, making use of a variety of digital communication platforms for accessibility and convenience.

Data Analysis

The data collected was subsequently analyzed using SPSS version 25, a commonly employed statistical software program for evaluating quantitative data. This rigorous analysis process helped in gaining insights into the strategies employed by teachers and their effectiveness in reducing students' speaking anxiety while promoting communication openness among Moroccan high school students.

Results

In this section, we present the results of our investigation concerning the sources of students' speaking anxiety and effective strategies to alleviate students speaking anxiety using a questionnaire developed by the researchers.

Table 1. Teachers' years of experience in teaching English

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-3	27	73,0	73,0	73,0
	4-6	4	10,8	10,8	83,8
	over 6 years	6	16,2	16,2	100,0
	Total	37	100,0	100,0	

Table 1 depicts teachers' years of experience in teaching English as a foreign language. 73% of them have been teaching English for 1-3 years, 10.8% have been teaching it for 4-6 years, while 16.2% have taught it for 6 years or more.

Table 2. Students encounter difficulties when they communicate in English

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	36	97,3	97,3	97,3
	Maybe	1	2,7	2,7	100,0
	Total	37	100,0	100,0	

Table 2 represents teachers' observations of students facing difficulties when using English communicatively. The results show that no teacher chose "No" as an option, while the majority (97%) selected "Yes," and only 2.7% opted for "Maybe."

Table 3. Problems students encounter when they speak English

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Inhibition (Ss' worries about making mistakes)	4	10,8	10,8	10,8
	Inhibition (Ss' worries about making mistakes), Nothing to say (Students struggling to find words)	3	8,1	8,1	18,9
	Inhibition (Ss' worries about making mistakes), Nothing to say (Students struggling to find words), Rare or no active participation	1	2,7	2,7	21,6
	Inhibition (Ss' worries about making mistakes), Nothing to say (Students struggling to find words), Rare or no active participation, The use of the mother tongue	9	24,3	24,3	45,9
	Inhibition (Ss' worries about making mistakes), Nothing to say (Students struggling to find words), The use of the mother tongue	7	18,9	18,9	64,9
	Inhibition (Ss' worries about making mistakes), Rare or no active participation, The use of the mother tongue	1	2,7	2,7	67,6
	Nothing to say (Students struggling to find words)	2	5,4	5,4	73,0
	Nothing to say (Students struggling to find words), The use of the mother tongue	6	16,2	16,2	89,2
	Rare or no active participation	2	5,4	5,4	94,6
	Rare or no active participation, The use of the mother tongue	1	2,7	2,7	97,3
	The use of the mother tongue	1	2,7	2,7	100,0
	Total	37	100,0	100,0	

Based on Table 3, English teachers were asked to identify the problems students encounter when speaking English. The results demonstrate that 24.32% of teachers chose inhibition, having nothing to say, rare or no active participation, and the use of the mother tongue. 18.92% opted for having nothing to say, the use of the mother tongue, and inhibition (students worry about making mistakes). 16.2% chose having nothing to say and the use of the mother tongue, while 10.8% opted for inhibition. 8.1% chose inhibition and having nothing to say, and 5.4% selected having nothing to say, while another 5.4% chose rare or no active participation. Additionally, 2.7% chose the use of the mother tongue, and another 2.7% selected rare or no active participation along with the use of the mother tongue. Another 2.7% of the participants chose inhibition, rare or no active participation, and the use of the mother tongue, while 2.7% of teachers chose inhibition, having nothing to say, and rare or no active participation.

Table 4. Vocabulary as a factor contributing to speaking anxiety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	20	54,1	54,1	54,1
	2	3	8,1	8,1	62,2
	3	4	10,8	10,8	73,0
	4	2	5,4	5,4	78,4
	5	3	8,1	8,1	86,5
	6	2	5,4	5,4	91,9
	8	1	2,7	2,7	94,6
	9	2	5,4	5,4	100,0
	Total	37	100,0	100,0	

Teachers were asked to rank factors contributing to speaking anxiety, and vocabulary was one of these factors. According to Table 4, 54.1% of teachers ranked vocabulary as the first factor, 8.1% as the second, 10.81% as the third, 5.4% as the fourth, 8.1% as the fifth, 5.4% as the sixth, 2.7% as the eighth, and 5.4% as the ninth.

Table 5. Grammar as a factor contributing to speaking anxiety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	10,8	10,8	10,8
	2	11	29,7	29,7	40,5
	3	4	10,8	10,8	51,4
	4	3	8,1	8,1	59,5
	5	3	8,1	8,1	67,6
	6	3	8,1	8,1	75,7
	7	4	10,8	10,8	86,5
	8	3	8,1	8,1	94,6
	9	2	5,4	5,4	100,0
	Total	37	100,0	100,0	

According to Table 5, 10.8% of teachers ranked grammar as the first factor contributing to speaking anxiety, 29.7% ranked it as the second, another 10.8% ranked it as the third, 8.1% as the fourth, and an additional 8.1% of respondents ranked it as the fifth. Additionally, 8.1% of teachers ranked grammar as the sixth, 10.8% as the seventh, 8.1% as the eighth, and 5.4% as the ninth.

Table 6. Fluency as a factor contributing to speaking anxiety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	5,4	5,4	5,4
	2	6	16,2	16,2	21,6
	3	10	27,0	27,0	48,6
	4	4	10,8	10,8	59,5
	5	2	5,4	5,4	64,9
	6	3	8,1	8,1	73,0
	7	5	13,5	13,5	86,5
	8	3	8,1	8,1	94,6
	9	2	5,4	5,4	100,0
	Total	37	100,0	100,0	

According to Table 6, 5.4% of teachers ranked fluency as the first factor contributing to speaking anxiety, 16.2% as the second factor, 27% as the third, 10.8% as the fourth, 5.4% as the fifth, 8.1% as the sixth, 13.5% as the seventh, 8.1% as the eighth, and 5.4% as the ninth.

Table 7. Motivation as a factor contributing to speaking anxiety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	13,5	13,5	13,5
	2	4	10,8	10,8	24,3
	3	4	10,8	10,8	35,1
	4	12	32,4	32,4	67,6
	5	3	8,1	8,1	75,7
	6	2	5,4	5,4	81,1
	7	3	8,1	8,1	89,2
	8	2	5,4	5,4	94,6
	9	2	5,4	5,4	100,0
	Total	37	100,0	100,0	

According to Table 7, 13.5% of the respondents chose motivation as the first factor contributing to speaking anxiety, 10.8% chose it as the second, 10.8% selected it as the third, 32.4% as the fourth, 8.1% as the fifth, 5.4% of respondents chose it as the sixth, 8.1% ranked it as the seventh, 5.4% ranked it as the eighth, and 5.4% ranked it as the ninth.

Table 8. Learner personality as a factor contributing to speaking anxiety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	8,1	8,1	8,1
	2	5	13,5	13,5	21,6
	3	3	8,1	8,1	29,7
	4	4	10,8	10,8	40,5
	5	14	37,8	37,8	78,4
	6	3	8,1	8,1	86,5
	8	2	5,4	5,4	91,9
	9	3	8,1	8,1	100,0
	Total	37	100,0	100,0	

Based on Table 8, 8.1% of the respondents chose learner personality as the first factor contributing to speaking anxiety, 13.5% ranked it as the second factor, 8.1% ranked it as the third. Learner personality was ranked as the fourth by 10.8% of respondents and as the fifth by 37.8%. Additionally, 37% of respondents ranked it as the sixth, 5.4% ranked it as the eighth, and 8.1% ranked it as the ninth.

Table 9. Teacher's teaching approaches as a factor contributing to speaking anxiety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2,7	2,7	2,7
	3	4	10,8	10,8	13,5
	4	4	10,8	10,8	24,3
	5	4	10,8	10,8	35,1
	6	13	35,1	35,1	70,3
	7	5	13,5	13,5	83,8
	8	4	10,8	10,8	94,6
	9	2	5,4	5,4	100,0
	Total	37	100,0	100,0	

Table 9 represents 2.7% of respondents who perceive teachers' teaching approaches as the first factor contributing to speaking anxiety. Additionally, 10.8% ranked it as the third, 10.8% as the fourth, and another 10.8% as the fifth. Furthermore, 35.1% ranked it as the sixth, 13.5% as the seventh, 10.8% as the eighth, and 5.4% as the ninth.

Table 10. Feedback provided by the teacher as a factor contributing to speaking anxiety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	8,1	8,1	8,1
	3	2	5,4	5,4	13,5
	4	2	5,4	5,4	18,9
	5	5	13,5	13,5	32,4
	6	4	10,8	10,8	43,2
	7	13	35,1	35,1	78,4
	8	5	13,5	13,5	91,9
	9	3	8,1	8,1	100,0
	Total	37	100,0	100,0	

According to Table 10, 8.1% of respondents ranked feedback provided by the teacher as the second factor contributing to speaking anxiety. Additionally, 5.4% ranked it as the third, another 5.4% ranked it as the fourth, 13.5% ranked it as the fifth, 10.8% ranked it as the sixth, 35.1% ranked it as the seventh, 13.5% ranked it as the eighth, and 8.1% ranked it as the ninth.

Table 11. Classroom activities as a factor contributing to speaking anxiety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	5,4	5,4	5,4
	3	5	13,5	13,5	18,9
	4	2	5,4	5,4	24,3
	5	2	5,4	5,4	29,7
	6	3	8,1	8,1	37,8
	7	6	16,2	16,2	54,1
	8	15	40,5	40,5	94,6
	9	2	5,4	5,4	100,0

Total	37	100,0	100,0

Based on Table 11, 5.4% of respondents ranked classroom activities as the second factor contributing to speaking anxiety. Additionally, 13.5% ranked it as the third factor, another 5.4% ranked it as the fourth, 5.4% ranked it as the fifth, 8.1% ranked it as the sixth, 16.2% ranked it as the seventh, 40.5% ranked it as the eighth, and 5.4% ranked it as the ninth.

Table 12. Lack of self-assurance as a factor contributing to speaking anxiety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	5,4	5,4	5,4
	2	3	8,1	8,1	13,5
	3	1	2,7	2,7	16,2
	4	4	10,8	10,8	27,0
	5	1	2,7	2,7	29,7
	6	4	10,8	10,8	40,5
	7	1	2,7	2,7	43,2
	8	2	5,4	5,4	48,6
	9	19	51,4	51,4	100,0
	Total	37	100,0	100,0	

According to Table 12, 5.4% of respondents ranked lack of self-assurance as the first factor contributing to speaking anxiety. Additionally, 8.1% ranked it as the second factor, 2.7% ranked it as the third, 10.8% ranked it as the fourth, 2.7% ranked it as the fifth, 10.8% ranked it as the sixth, 2.7% ranked it as the seventh, 5.4% ranked it as the eighth, and 51.4% ranked it as the ninth.

Table 13. Effective strategies to encourage students' willingness to communicate

		Responses		Pourcentage of observations
		N	Percent	
Strategies to alleviate speaking anxiety and encourage students to use spoken English	Positive classroom atmosphere	5	13,5%	13,5%
	Positive feedback and praising	16	43,2%	43,2%
	Delayed and implicit correction of errors	1	2,7%	2,7%
	Teachers' support (such as the use of prompts)	5	13,5%	13,5%
	Incorporation of activities (such as games, role-playing, drama, storytelling)	3	8,1%	8,1%
	collaborative work and learning through tasks	6	16,2%	16,2%
	The use of technology	1	2,7%	2,7%
	Total	37	100,0%	100,0%

As demonstrated in table 13, teachers were asked to rank, according to their significance, the effective strategies that help encourage students' willingness to communicate. Results proved that students receiving positive feedback and praising are ranked as the first by 43,2% of the respondents, 13,5% of the participants ranked collaborative work and learning through tasks as the second, then positive classroom atmosphere and teachers' support (such as the use of prompts) were ranked by 13,5% of the participants, followed by incorporation of activities such as games, role-playing, drama, and storytelling ranked by 8,1%, while delayed and implicit correction of errors as well as the use of technology were ranked the last with 2,7% as having less impact on students' encouragement to the use of English language communicatively.

Discussion

The primary objective of this current investigation is to ascertain whether Moroccan High School students experience anxiety when utilizing English orally. If such anxiety is indeed prevalent, the study seeks to delineate the underlying causal factors and, subsequently, propose viable solutions aimed at mitigating this anxiety within the classroom context while boosting students' willingness to communicate. Based on the results, most teachers, comprising 73% of them, have taught for 1-3 years, indicating that they possess sufficient experience to identify the causes and solutions to the issue of speaking anxiety. Besides, no teacher asserts that students never encounter

difficulties when speaking English. Most, if not all, acknowledge this fact, underscoring that the phenomenon of speaking anxiety represents a significant issue encountered by students within the context of English language classes (Stalnaker, 2023).
Teachers were provided with a questionnaire developed by researchers, which included suggested problems that students commonly encounter when using a foreign language for communication. A significant majority of teachers reported that students encounter a variety of issues, including inhibition; specifically, students expressed concerns about making mistakes, experiencing a lack of ideas, having limited opportunities to participate, and the detrimental habit of switching to their native language, all of which hinder their communication progress. In a study conducted by Alim (2023), research findings have identified six distinct forms of behavioral inhibition commonly experienced by students. These findings indicate that students' behaviors, including the utilization of their bilingual or mother tongue, experiencing mental lapses, exhibiting low motivation, demonstrating shyness, lacking confidence, and succumbing to anxiety, collectively impede their proficiency in spoken English. According to Bozkurt and Aydin (2023), the cultivation of oral communication skills may present greater challenges, particularly within conventional classroom settings characterized by limited opportunities for interaction among learners and instructors. Consequently, the establishment of conducive learning environments that facilitate language acquisition and alleviate anxiety becomes imperative. This can be achieved through the creation of scenarios mirroring real-life situations and the integration of authentic instructional materials. Similarly, Aparece and Bacasmot (2023) emphasize that research has revealed that when teachers compel their students to abstain from using their first language (L1) in the process of acquiring a second language (L2), it can have a detrimental impact on their proficiency in learning the target language.

In the questionnaire, teachers were presented with various sources of students' speaking anxiety and were asked to rank them based on their significance and impact on students' anxiety while speaking. The results revealed that one of the most significant sources of speaking anxiety is vocabulary, which received the highest rating among other factors. This is a critical issue because students' limited vocabulary inhibits them, making them more concerned about making mistakes and how they are perceived by others. The fear of being mocked or hesitating due to a lack of competence is a common consequence of this vocabulary challenge. In fact, vocabulary is a crucial skill for students learning English as a second language because it facilitates clear communication, clear writing, and precise word translation. However, pupils frequently have trouble communicating their ideas due to a lack of proper vocabulary, which sporadically results in the misuse of synonyms with different contextual meanings (Amanda, 2023).

Following vocabulary, motivation was ranked slightly lower but still deemed an important factor by a substantial number of teachers. Motivation plays a crucial role in hindering the students' communication process. Students who lack interest in a subject may not fully appreciate what they are learning, even if they receive rewards periodically. Intrinsic motivation, which lasts longer and encourages productivity, is seen as the ideal form of motivation. Enhancing or nurturing students' intrinsic motivation is a task assigned to teachers, who are expected to create a positive and welcoming classroom environment that encourages students to express themselves without fear. According to Mardhatilla et al. (2023), motivating students to actively engage in English learning poses a challenge, making it difficult for them to excel in speaking skills, owing to numerous factors that hinder students' ability to develop their speaking skills. Sari and Melani (2023) claim that motivation is one of them and a detrimental one.

Next in the rankings is grammar, which is essential for conveying the correct message and meaning in communication. Misunderstandings can arise from a lack of understanding, causing communication to deviate from its intended direction. According to a study conducted by Alazeer and Ahmed (2023), lack of grammar makes students nervous when they speak to native speakers rather than comfortable, also in class, students' inaccurate grammar will not enable the teacher to understand what they will say and will evaluate them or make their peers laugh at them. The study suggested that teachers need to analyze problems their students face; also teachers need to understand the different characteristics of students and analyze their problems and try to find solutions, encourage them to be active and confident in practice, making topics clear and encouraging preparation before class.

Learner personality and feedback, whether from teachers or peers, can also contribute to students' anxiety and affect their ability to participate in conversations. This is especially true for teenagers whose personalities are still developing, as negative comments can have a significant impact on their self-esteem and self-concept. The way learners consider their learning aptitude have a great impact on their actions towards learning that language (Yeşilçınar & Erdemir, 2023).
Fluency, self-assurance, and classroom activities were rated equally in terms of their impact on speaking anxiety. This suggests that students can communicate effectively even without perfect fluency if they are motivated, have

a strong vocabulary and grasp of grammar, possess a personality conducive to communication, and receive appropriate feedback on their performance.

Lastly, teacher approaches to teaching were ranked as the least significant source of speaking anxiety. This implies that the methods and approaches used by teachers in the classroom have a relatively minor impact on students speaking anxiety compared to the other factors mentioned above. According to a study conducted by Irawan et al. (2023), a teacher's teaching effectiveness depends on their mastery of diverse learning techniques and the ability to create individualized lesson plans for students of varying abilities.
Based on empirical research, it is apparent that the provision of appropriate feedback by tutors is imperative within the pedagogical framework. Students who receive constructive and affirmative feedback, coupled with appreciation for their efforts, demonstrate a heightened propensity for academic improvement. Furthermore, such students are more likely to foster the necessary competencies to engage in future opportunities for effective communication.

In addition to the centrality of feedback, collaborative endeavors and task-based learning methodologies have garnered recognition as efficacious modalities that can significantly augment students' proclivity to communicate proficiently in a foreign language. The practical application and active engagement intrinsic to these approaches are contributory factors. Avakoli and Zarrinabadi (2018) discovered that teachers' implicit corrective feedback, rather than explicit corrective feedback, had a positive impact on enhancing learners' second language self-confidence and their willingness to communicate.

Cultivating a positive classroom milieu, wherein teachers endeavor to facilitate students' speech production through various means, including prompts and gestures, emerges as a constructive avenue for promoting foreign language acquisition. In such an environment, students are afforded a sanctuary from apprehension concerning external judgment or potential embarrassment. They receive not only guidance from instructors but also support and assistance from their peers, circumventing any potential ridicule. Consequently, this encourages spontaneous expression, alleviating the need for excessive cognitive deliberation prior to speaking. Moreover, the strategic integration of pedagogical activities serves as a noteworthy catalyst in fomenting students' willingness to engage in English communication across diverse contexts. Subsequently, while other strategies are of supplemental significance, they have been positioned in a subordinate capacity due to their relatively moderate impact on enhancing students' communicative capabilities. These include delayed and implicit error correction mechanisms as well as the incorporation of technological tools within the instructional milieu. Furthermore, within the framework of the questionnaire, participants were prompted to put forward alternative strategies aimed at mitigating students' speaking anxiety and fostering their willingness to participate in oral communication. These suggestions extended beyond the strategies previously outlined, reflecting a rich tapestry of pedagogical insights.
Firstly, a cohort of tutors underscored the importance of providing students with clear role models to emulate and unambiguous guidelines to follow during language-related tasks. This guidance was viewed as instrumental in reducing anxiety and bolstering students' confidence in speaking endeavors.

Secondly, the concept of curricular adaptation emerged as a salient theme. Some teachers advocated for modifications to the curriculum itself, suggesting innovative approaches like the adoption of a flipped classroom methodology or the strategic incorporation of Information and Communication Technology (ICT) to enhance language learning. These changes were perceived as promising avenues to alleviate speaking anxiety.
Another noteworthy proposal centered on class size reduction. A subset of educators emphasized the need to limit class sizes, contending that smaller groups would facilitate the implementation of pair and group work. Such collaborative activities were seen as pivotal in enabling students to practice and improve their spoken language skills with greater ease.

Additionally, a spectrum of creative and student-centered strategies was put forth. These included the introduction of stress-free warm-up activities, an approach that could create a more relaxed atmosphere conducive to speaking. Moreover, there was an emphasis on fostering a culture of tolerance for mistakes, encouraging students to find alternative ways of expression rather than dwelling on correcting every single error.

Furthermore, recommendations extended to immersing students in abundant listening opportunities, engaging them in discussion-based activities, and incorporating hands-on projects designed to promote autonomous learning. These encompassed techniques like case study analysis, jigsaw puzzles, role-playing, exploration of song lyrics, video-based activities, imitation of short movie scenes, and the initiation of debates on pertinent topics. Additionally, students were encouraged to undertake presentations, with an emphasis on moving away from

lecture-based instruction in favor of promoting inquiry-based learning. These diverse pedagogical approaches aimed to stimulate active engagement and confidence in oral communication.

Moreover, participants underscored the value of providing students with ample time for reflection before responding, as well as the utility of offering clear and concise references for revision prior to classroom activities. Additionally, the suggestion was made to select topics based on students' interests, making the learning experience more personally relevant and engaging.

Ultimately, the overarching objective of these multifaceted strategies was to imbue the learning process with meaning by establishing connections between English language topics and learners' daily life challenges and global issues. In this manner, educators sought to cultivate an environment that encourages students to not only overcome speaking anxiety but also to actively embrace the opportunity for meaningful communication in the English language.

Conclusion

This study aims to explore the causes of English-speaking anxiety in Moroccan high school classrooms and propose potential solutions. Using a quantitative research approach, the research assesses the level of speaking anxiety observed by teachers in their students, identifies its sources, and suggests strategies to reduce this anxiety. Given that these students will eventually need to use English in various contexts after graduation, a lack of confidence and proficiency in spoken English could hinder their social and professional integration. This research seeks to understand the problem and offer preventive measures and solutions, recognizing that some teachers might unintentionally contribute to student anxiety. Furthermore, this study encourages further investigation into the topic in different regions or countries. Some of the limitations of this study include challenges in engaging a significant number of teachers and their insufficient training in addressing issues related to speaking anxiety. Additionally, there is a need for broader perspectives from both teachers and students in the study.

Acknowledgements

I would like to thank everyone who supported and guided me throughout this research. Special thanks to students who participated in this study.

Ethical Approval

The author affirms that all scientific and ethical principles were adhered to during the conduct and writing of this study, and that all sources have been appropriately cited.

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International Journal of Contemporary Educational Research

Volume 11, Number 2, June 2024, Page 250-261 Article Type: Research Article

Teachers' Views on Lifelong Learning

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Abstract

Lifelong learning is all forms of learning from cradle to grave. Lifelong learning requires everyone to improve themselves. People are expected to be lifelong learners because school knowledge is insufficient. In this framework, educational approaches all over the world focus on lifelong learning and need lifelong learners. This study adopted a qualitative research design to investigate teachers' views on lifelong learning. The sample consisted of 30 teachers from different branches. Data were collected using a semi-structured interview guide. The data were analyzed using content analysis. Participants viewed lifelong learning as a process not limited to schools. They also associated it with all kinds of learning activities and personal growth. They believed lifelong learning was necessary for technological advances, social change, and a high quality of life. They stated that the goals of lifelong learning were accessing educational opportunities, increasing knowledge and skills, and transforming students into qualified people. They noted that motivation, education systems, and social and cultural changes affected lifelong learning.

Keywords: lifelong learning, Teacher, Qualitative research, Teacher opinions

Citation

Koç, S. (2024). Teachers' views on lifelong learning. *International Journal of Contemporary Educational Research, 11*(2), 250-261. https://doi.org/10.52380/ijcer.2024.11.2.621

Received	21.01.2024
Accepted	27.04.2024
Publication	15.06.2024
Peer-Review	Double anonymized - Double Blind
Plagiarism Checks	Yes - iThenticate
Conflicts of Interest	The author(s) has no conflict of interest to declare.
Complaints	ijceroffice@gmail.com
Grant Support	The author(s) acknowledge that they received no external funding in support of this research.
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Introduction

Lifelong learning is all forms of learning from "cradle to grave." Lifelong learning requires everyone to improve themselves. People are expected to be lifelong learners because school knowledge is insufficient. In this framework, educational approaches all over the world focus on lifelong learning and need lifelong learners.
The concept of lifelong learning has arisen to adapt to the swiftly evolving and changing social and cultural landscape, aligning with the requirements of the current era. Lifelong learning has evolved into a significant benchmark for assessing education levels and employment conditions in both developed and developing countries. The world is in a state of rapid and multifaceted change. Lifelong learning can be viewed as a solution to meet emerging needs amid rapid change [Ministry of National Education (MNE) in 2014].

In 1995, the European Union's White Paper set out the Union's aims and objectives for lifelong learning under the title "Towards the Learning Society: Teaching and Learning." The report and the commission aspire to transition towards a society that encompasses all segments and engages in continuous learning. The decisions also have a concrete practical aspect. The objectives outlined in the White Paper encompass motivating individuals to acquire new knowledge, fostering collaboration between the school and business sectors, addressing social exclusion, cultivating proficiency in three of the union's languages, and balancing investment between industries and education (Akbaş and Özdemir, 2002). In 1995, the European Union, following a decision of the European Parliament and Council, proclaimed 1996 "The European Year of Lifelong Learning." During the 2000 European Council meeting, lifelong learning was acknowledged as one of the fundamental components of the European Union (European Commission, 2002).

Lifelong learning encompasses all intentional learning activities, whether formal or informal, continual and ongoing, with the goal of enhancing knowledge, skills, and competencies within the realms of personal, social, community, and/or professional life (A Memorandum on Lifelong Learning, 2000). In addition, the European Commission defines lifelong learning as all learning activities undertaken throughout life with the aim of improving knowledge, skills, and competences within a personal, civic, social, and/or employment-related perspective (2002). Lifelong learning encompasses both employment-related and individual, citizenship, and social goals and takes place in different settings within the formal education system. It incorporates more flexible forms of learning designed to enhance investment in people and knowledge. It also supports the acquisition of fundamental skills (e.g., computer literacy) while expanding opportunities for innovation (Turan, 2005). Lifelong learning is a combination of individual and organizational learning (Jarvis, 2004). It also encompasses informal education, often used in conjunction with concepts such as adult education and continuing education, which refers to the continual acquisition and updating of various knowledge, values, skills, and qualities that individuals accumulate throughout their lives, from infancy to the end of life. Lifelong learning is defined as a supportive process that helps people put all this knowledge, values, skills, and understandings into practice (Candy, 2003). Lifelong learning is affected by numerous direct and indirect factors, such as age, economics, politics, motivation, role models, learning for fun, cultural context, literacy, attitudes, competencies, skills, ICT, and experience (Günüç, Odabaşı, & Kuzu, 2012). Lifelong learning is about learning, which takes place throughout life. It relies on effective learning that emphasizes information processing, fundamental learning-to-learn skills, and cognitive and metacognitive abilities (Cornford, 1999, 2000, 2002). The goals of lifelong learning encompass the development of a highly qualified workforce, personal growth for a more successful life, and the strengthening of society (Chapman & Aspin, 2001). Nyiri (1997) uses key concepts to define lifelong learning. To him, learning is constant. People with a tendency toward lifelong learning believe that they can learn throughout their lives. They are also eager to learn and are not afraid of making mistakes. In other words, lifelong learners are those who are willing to learn and enjoy learning.

Success in lifelong learning cannot be achieved through individual efforts alone. We need to organize our social policies in this direction as well. Social policies should not solely concentrate on the development of the social economy; they should also prioritize the well-being and self-realization of individuals (Günüç, Odabaşı, & Kuzu, 2012). As individuals, we should embrace a self-learning mindset, availing ourselves of lifelong learning opportunities to apply current knowledge and skills in our daily lives (Yaman & Yazar, 2015).

Lifelong learning is about how rather than what to learn. It seems that it focuses on the question, Let's learn. Information learned in schools is constantly changing; the important thing is to be open to new information and learn how to access it. Then lifelong learning means providing the needed information in the shortest and most effective way possible. It can be defined as the ability to reach. Teachers can successfully play their role as facilitators of learning, and their realizations are seen to be related to their lifelong learning skills. The development of information technologies has led to new developments being implemented in the learning-teaching process. Approaches and methods and lifelong learning skills are the most important competencies for teachers. In order to create an effective learning environment in schools, teachers must be equipped with lifelong learning skills.

Lifelong learning skills affect both the quality of the instructor and the education. It is the most important competence area related to improving the quality of the education system. The teacher helps the learners become aware of their thoughts, to draw a strategic path, and to develop their motivation. It has to be a guide to achieving the goals.

There is a large body of research into lifelong learning. For example, Güleç, Çelik, and Demirhan (2012) made an assessment of the concept and scope of lifelong learning. Some researchers have focused on teachers' and preservice teachers' tendency toward lifelong learning (Yaman & Yazar, 2015; Erdamar, Demirkan, Saraçoğlu, & Alpan, 2017; Pınarcık, Özözen Danacı, Deniz, & Eran, 2016; Şahin & Arcagök, 2014). Kazu and Erten (2016) concentrated on teachers' lifelong learning competencies, while Ayra and Kösterelioğlu (2015) addressed the relationship between lifelong learning tendency and professional self-efficacy among teachers. When the research findings were analyzed, teachers' lifelong learning tendencies and professional self-efficacy were determined to be at a good level. Evin-Gencel (2013) studied preservice teachers' lifelong learning competencies, and according to the analysis results, it was determined that there is a statistically significant difference in perceptions in terms of gender and department of study. The field in which preservice teachers feel most competent is communication in their native language. while other researchers examined their lifelong learning tendencies (Tunca, Alkın-Şahin, & Aydın, 2015; Kılıç, 2014; İzci & Koç, 2012; Oral & Yazar, 2015). Recepoğlu (2021) focused on preservice teachers to investigate the relationship between their lifelong learning tendencies and self-directed learning skills. Diker-Coşkun and Demirel (2012) concentrated on college students' lifelong learning tendencies. Yavuz-Konokman and Yanpar-Yelken (2014) addressed the lifelong learning competence of education faculty lecturers. Karakuş (2013) focused on the lifelong learning competencies of vocational school students. Köğce et al. (2014) studied academics' views on 21st century learner standards and lifelong learning. Babanlı and Akçay (2018) concentrated on the lifelong learning competences of trainees in adult education. The studies were conducted with both preservice teachers and teachers. Quantitative studies generally examine the relationship between lifelong learning tendencies and another variable. Most studies have adopted quantitative research designs. There is no qualitative research that has been done with teachers. Therefore, this qualitative study will make a significant contribution to the literature.

Teachers and preservice teachers must possess lifelong learning competencies in order to lead the social change they are expected to bring about (UNESCO, 1996). Teachers should both help students learn to learn and invest in themselves through continuous improvement in their own lives. It is important for teachers to teach in accordance with the lifelong learning knowledge and skills required by today's information world and to take this into consideration when educating students. The importance of teacher education in achieving lifelong learning societies. Mentioning the importance of lifelong learning with teachers emphasizes the need to develop application competencies. This paper aimed to elicit information on teachers' views of lifelong learning. To that end, the research questions are as follows:

1. What are teachers' views on lifelong learning?
2. What are the needs of teachers for lifelong learning?

Method

Researchers adopt qualitative research designs (e.g., phenomenology) to look into phenomena through other people's lenses (Merriam & Grenier, 2019). Phenomenology is an individual's or a group's experience with a phenomenon (Christensen, Johnson, & Turner, 2015). The phenomenology pattern focuses on phenomena that we are aware of but do not have an in-depth and detailed understanding of. In the world we live in, phenomena appear in various forms, such as events, experiences, perceptions, tendencies, concepts, and situations (Yıldırım & Şimşek, 2006). This study adopted phenomenology to investigate teachers' views and perceptions of lifelong learning. Interviews with teachers were collected with the help of semi-structured interviews.

Study Group

The sample consisted of 30 teachers (ten women and 20 men) from various branches in the 2023-2024 academic year. Participants were recruited using maximum variation sampling based on gender, branch, work experience, and socioeconomic background. The purpose of maximum variation sampling is to ensure a comprehensive and representative sample that encompasses the diversity inherent in the larger group (Yıldırım & Şimşek, 2006).

Table 1. Demographic Characteristics

Participant No	Gender	Work Experience	Branch
1	Woman	15	Turkish
2	Man	11	Justice
3	Man	22	Primary Teacher
4	Man	8	Primary Teacher
5	Woman	3	Biology
6	Man	39	Primary Teacher
7	Man	6	Primary Teacher
8	Man	9	Gym
9	Woman	6	Science
10	Man	9	Music
11	Man	13	Preschool
12	Man	9	Turkish
13	Woman	19	Primary Teacher
14	Man	20	Primary Teacher
15	Man	11	Social Studies
16	Man	3	Primary Teacher
17	Man	7	Religious Culture and Ethics
18	Man	7	Social Studies
19	Man	10	Primary Teacher
20	Man	9	Visual Arts
21	Man	23	Gym
22	Woman	25	Handicraft Technology
23	Woman	23	Mathematics
24	Man	25	History
25	Woman	20	Preschool
26	Man	3	Primary School Mathematics
27	Man	5	Biology
28	Woman	20	Philosophy
29	Woman	5	Guidance and Psychological Counseling
30	Woman	25	History

A total of 30 teachers, 10 female and 20 male, participated in the research. 21 teachers work in primary and secondary schools, and 8 teachers work in high schools. There are 19 teachers with work experience between 0-15 years, 10 teachers with experience between 15-30 years, and 1 teacher with over 30 years of work experience. Participants were classroom (n=8), preschool (n=2), Turkish (n=2), biology (n=2), history (n=2), social studies (n=2), physical education (n=2), music (n=1), religious culture and ethics (n=1), justice (n=1), mathematics (n=1), primary school mathematics (n=1), philosophy (n=1), visual arts (n=1), handicraft technology (n=1), guidance and psychological counseling (n=1), and science teachers (n=1). All participating teachers work in the city.

Data Collection

The data was collected using a personal information form and a semi-structured interview guide. The personal information form elicited information on participants' demographic characteristics. The interview guide consisted of four questions addressing participants' views of lifelong learning. The researchers reviewed the literature and developed a pool of questions. Two experts in the educational sciences reviewed the questions for intelligibility and relevance. Initially, there were five questions. As a result of the opinions of experts, it was reduced to four questions. The researcher revised and finalized the questions based on expert feedback. Participation was voluntary. The data were derived from written documents from some teachers and some from records. Interview questions were collected by meeting teachers face-to-face in their schools. Face-to-face interviews lasted 20-25 minutes in total. Written documents derived from e-mail or from the phone.

This study sought answers to the following questions:

1. What does "lifelong learning" mean to you?
2. Why do we need lifelong learning?
3. What is the purpose of lifelong learning?
4. What factors do you think affect lifelong learning?

Data Analysis

The data were analyzed using content analysis, which is a qualitative analysis technique. Content analysis helps researchers identify patterns, trends, and recurring themes within a body of content. The fundamental process in content analysis involves consolidating similar data within the framework of specific concepts and themes and subsequently organizing and interpreting them in a manner that facilitates understanding for the reader (Yıldırım & Şimşek, 2006). The researchers developed four themes in light of the literature and also in line with research questions: (1) teachers' perceptions of lifelong learning, (2) the need for lifelong learning; (3) the goal of lifelong learning; and (4) factors affecting lifelong learning. They assigned a code to each participant (P1, P2, P3, etc.) and provided direct quotes to illustrate and exemplify the themes. A number of issues were taken into consideration for the reliability of the study. Research questions were created using the literature. The research questions were created to suit the general purpose of the study. Expert opinion was consulted while preparing the semi-structured interview form. Participants were given sufficient time during the data collection process. The necessary ethical committee permissions were obtained for the study.

Results and Discussion

This section presented the results regarding the research questions under the themes: (1) teachers' perceptions of lifelong learning, (2) the need for lifelong learning, (3) the goal of lifelong learning, and (4) factors affecting lifelong learning.

Teachers' Perceptions of Lifelong Learning

The first research question was, "What does 'lifelong learning' mean to you?" This section addressed the results regarding participants' answers to the question. The findings indicated three codes concerning participants' views of lifelong learning: (1) learning not limited to school, (2) any kind of learning activity, and (3) personal growth. It has been determined that learning and all kinds of learning activities and personal development are not limited to schools.

Participants stated that "lifelong learning" meant "learning not limited to school." The following are some quotations:

"*To me, lifelong learning means people learning all the time, no matter where – not just in school, but everywhere*" *(P3).*
"*Learning isn't confined to schools; it happens at home, at work, in all aspects of life. It's a lifelong journey that goes on regardless of age, social or economic status, or educational level, without any barriers*" *(P5).*
"*To me, lifelong learning means education that goes beyond the walls of schools; it can happen wherever people are, without being bound by time or space*" *(P20).*

Participants noted that lifelong learning was all kinds of learning activity. The following are some quotations:

"*Life's the time from when you're born until you die. For a good chunk of that time, people need to keep learning for all sorts of reasons. So, lifelong learning? It's basically any learning thing people do, giving education to people throughout their whole lives*" *(P13).*
"*Lifelong learning, in a nutshell, includes everything you learn in your family, at schools (formal education), and even outside of them (non-formal education). It's about picking up knowledge, skills, and abilities right from the time you first open your eyes to the world. This covers all the stuff that helps you grow personally and socially*" *(P14).*
"*Lifelong learning is essentially any learning that goes on, whether you choose it or it just happens, from the time you're born till the day you pass away*" *(P16).*

Most participants associated lifelong learning with personal growth. The following are some quotations:

"*Lifelong learning is about staying open to growth and recognizing the constant need to learn at every stage of life*" *(P11).*
"*Lifelong learning is the ongoing journey of constantly gaining new knowledge, honing skills, and fostering personal growth at every phase of your life, extending beyond the school years. This idea suggests that learning isn't confined to formal education but expands into work, hobbies, social interactions, and personal growth*" *(P15).*
"*Lifelong learning is the kind of education people get, whether they've bounced out of school for any reason or are still hitting the books, all geared towards boosting their personal growth or diving into their hobbies (P21).*
"Lifelong learning is all about grabbing new knowledge, building up skills, and unlocking personal potential, no matter your age, the situation you're in, or the field you're interested in" (P23).

"*Lifelong learning covers the whole deal - the education, training, and learning activities that help you develop your knowledge and skills. It's about keeping up with the constantly changing world of this century, whether you're in formal classrooms or picking up things outside the traditional settings, all throughout your life*" *(P24).*
"*Lifelong learning is like an ongoing adventure in self-development and discovery. It's not just about hitting the books for work or school but diving into interests and hobbies, crossing boundaries beyond your usual field* " *(P29).*

The Need for Lifelong Learning

The second research question was, "Why do we need lifelong learning?" This section addressed the results regarding participants' answers to the question. The findings indicated three codes concerning participants' views of why we need lifelong learning: (1) advances in technology, (2) contribution to social change, and (3) improving the quality of life. Technological developments should be considered as contributing to social change and improving the quality of life.

Participants stated that advances in technology were the reason why people needed lifelong learning. They noted that advances in technology made people more likely to receive education throughout their lives. The following are some quotations:

"*Thanks to tech progress, what you learn in school might not cut it with all the gadgets like computers, the internet, and TV around. Simply put, in this tech era, people have to keep on learning throughout life to stay ahead and outdo themselves*" *(P3).*
"*Advancements in technology and recognizing what's lacking within oneself have sparked the necessity for lifelong learning*" *(P9).*
"*Relying solely on what you learn in school isn't enough to sustain a career throughout an average human's life. Given the constant evolution of technology, people are compelled to keep updating their skills and staying in the loop with new information*" *(P20).*

Participants remarked that the need for lifelong learning was associated with keeping pace with the changing world and contributing to social changes. The following are some quotations:

"*In today's world, we're deep into a time of social, cultural, economic, and political shifts and progress. As a result, the needs of both individuals and societies have evolved. In this dynamic environment, the knowledge individuals currently possess might not cut it. Lifelong education becomes crucial, allowing individuals to continually refresh their understanding and stay in sync with the ever-changing fabric of society* " *(P5).*
"*Lifelong learning is our ticket to keeping up with the ever-changing world, giving a boost to our personal and professional growth, enhancing our problem-solving skills, letting us discover more about ourselves, and throwing in a bonus by contributing to society. That's why the call for lifelong learning is absolutely crucial*" *(P23).*
"*In this era of constant information flux, lifelong learning has become a must for folks to adapt to their surroundings and navigate their lives more effectively*" *(P25).*

Participants stated that lifelong learning improved our quality of life. The following are some quotations:

"*Lifelong learning is a must for adapting to the ever-changing world, advancing in your career, finding personal fulfillment, exploring new interests, and keeping mentally sharp. The ongoing process of learning helps keep knowledge up-to-date, builds resilience, and enhances overall quality of life*" *(P4).*
"*The core objective of lifelong learning is to empower you to navigate the information-driven society you're part of and seize control of your life at a higher level, actively contributing to every aspect of life in social, economic, and cultural contexts*" *(P10).*
"*Lifelong learning enables individuals to pick up various skills and apply them in their day-to-day lives. This not only enhances the quality of life but also fosters a sense of effectiveness in individuals*" *(P15).*

The Purpose of Lifelong Learning

The third research question was, "What is the purpose of lifelong learning?" This section addressed the results regarding participants' answers to the question. The findings indicated three codes concerning participants' views of the purpose of lifelong learning: (1) access to educational opportunities; (2) knowledge and skill enhancement; and (3) qualified human resources. They stated these as access to educational opportunities, increasing knowledge and skills, and qualified manpower.

Participants noted that the goals of lifelong learning were accessing educational opportunities and enjoying learning. The following are some quotations:

"*Lifelong learning means everyone, no matter where they are-out in the country or in the city - gets the chance to learn and get trained up*" *(P2).*
"*The aim of lifelong learning is to boost education everywhere - whether it's at school, home, or work - no matter the place or space*" *(P14).*
"*The aim of lifelong learning is to give a chance to those who missed out on learning earlier, especially disadvantaged groups. It lets people learn on their own terms without being constrained by a fixed timeframe*" *(P26).*

Participants noted that the objective of lifelong learning was to allow learners to enhance their knowledge and skills. The following are some quotations:

"*The objectives of lifelong learning are to amp up knowledge and skills by constantly bettering oneself, gain new experiences, and hit personal and professional goals*" *(P4).*
"*In our ever-changing world, lifelong learning aims to boost an individual's smarts and skills, make sure they keep growing professionally, and keep things cohesive in society*" *(P11).*
"*Lifelong learning is all about picking up activities that help folks adapt to the skills needed in this era and handle the various demands of everyday life. The idea is to kick off learning from the preschool days and keep going through the educational and professional stages*" *(P13).*
"*The big goal of lifelong learning is to make sure folks keep on grabbing fresh knowledge, refining their skills, and growing personally all through their lives. It's not just about formal education; the idea is to keep folks continually improving in their work lives, social circles, hobbies, and overall personal growth*" *(P15).*
"*The aim of lifelong learning is to keep living our lives in a high-quality and healthy way, nudging our behavior, knowledge, and skills towards positive growth*" *(P22).*

Participants remarked that the objective of lifelong learning was to generate qualified human resources. The following are some quotations:

"*Lifelong learning is all about helping us stay in the loop with the shifts in life and knowledge, contributing positively to our personal growth. Moreover, it's geared towards backing up economic development by supplying the skilled human resources that society and businesses need* "*(P7).*
"*The goal of lifelong learning is to complement our academic and professional growth rather than serve as an alternative to formal education*" *(P8).*
"*The aim of lifelong learning is to educate not just students but everyone in society, arming them with the tools to make their lives easier*" *(P17).*

What Factors Do You Think Affect Lifelong Learning?
The fourth research question was, "What factors do you think affect lifelong learning?" This section addressed the results regarding participants' answers to the question. The findings indicated three codes concerning participants' views of the factors affecting lifelong learning: (1) motivation, (2) education systems, and (3) social and cultural changes. Motivation, education systems, and social and cultural changes are factors that affect lifelong learning.
Participants stated that motivation affected lifelong learning. The following are some quotations:

"*People's inclination to learn can be seen as a crucial factor, influenced by their expectations from life and motivation to learn. The societal well-being level can also be considered a significant source of motivation concerning learning needs and acquiring new knowledge*" *(P13).*
"*Knowledge, skills, attitudes, and motivation affect lifelong learning*" *(P14).*
"*Personal goals, interests, and motivation influence lifelong learning*" *(P15).*
"*First of all, everybody should be up for learning. It's key that you grab what interests and suits you—stuff that you can make a part of your life through hands-on doing, living, and experiencing things firsthand* " *(P22).*

Participants noted that education systems affected lifelong learning. The following are some quotations:

"*The main thing steering lifelong learning is how governments see it. Even with various factors at play, it's the governments that put education policies into action through the education systems*" *(P12).*
"*The ability of schools and their programs to offer ongoing chances for learning plays a big role in lifelong learning*" *(P17).*
"*Lifelong learning is shaped by how easily you can get into educational opportunities in the stuff you want to learn, your eagerness to make use of these chances, and your discipline in keeping up with the process*" *(P29).*

Participants remarked that social and cultural changes affected lifelong learning. The following are some quotations:

"*The way we gain knowledge is affected by social values and expectations as well as cultural shifts*" *(P18).*
"*Social and cultural changes affect lifelong learning*" *(P26).*
"*Lifelong learning gets influenced by things like where people live, the conditions around them, and the cultural vibes of the place*" *(P30).*

Conclusion

This paper investigated teachers' perceptions of lifelong learning. The main research questions were, (1) What does "lifelong learning" mean to you?, (2) Why do we need lifelong learning?, (3) What is the purpose of lifelong learning?, and (4) What factors do you think affect lifelong learning? Participants' responses were analyzed and interpreted.

The first research question was, "What does 'lifelong learning' mean to you?" The findings indicated three codes concerning participants' views of lifelong learning: (1) learning not limited to school; (2) any kind of learning activity; and (3) personal growth. Participants noted that lifelong learning extended beyond the confines of formal education in schools. They also associated it with all kinds of learning activities and personal growth. To participants, lifelong learning meant that everyone learned throughout life without restrictions, not just in school but everywhere. They said that lifelong learning occurs at home, at work, and in all aspects of life, irrespective of age, social or economic status, and educational level, without any barriers. Most participants associated lifelong learning with all kinds of learning activities. They said that everybody was exposed to or in need of continuous learning for various reasons and for a significant part of their lives. They believed that lifelong learning encompassed all learning activities in the family and in formal and non-formal education institutions to develop knowledge and skills from the moment we opened our eyes to life. They added that lifelong learning included all activities that equipped us personally and socially. Lifelong learning is defined differently. According to a Memorandum on Life Learning (2000), lifelong learning is defined as ongoing, all-encompassing formal or informal learning activities undertaken to develop knowledge and skills within the realms of personal, social, or professional life. The European Commission (2002) defines lifelong learning as "all learning activities conducted throughout life with the goal of enhancing knowledge, skills, and competences within a personal, civic, societal, or employment-related viewpoint." These deficiencies are in line with our results.

The second research question was, "Why do we need lifelong learning?" Participants' responses to the second research question yielded three codes: "advances in technology," "contribution to social change," and "improving the quality of life." Participants asserted that the necessity for lifelong learning stemmed from technological advances. They believed that progress in technology rendered school knowledge obsolete, emphasizing the importance for individuals to persistently engage in learning throughout their lives as a means to surpass their current selves. In other words, they noted that people needed to constantly update themselves and access new information in the face of technological advances.

Participants noted that the need for lifelong learning helped them adapt to the ever-changing world and social shifts. Teachers stated that we were in a process of sociocultural, economic, and political flux, changing the needs of individuals and societies. They pointed out that the current knowledge individuals possessed became insufficient, highlighting the possibility for individuals to consistently renew themselves and harmonize with society through lifelong education. They also added that lifelong learning allowed individuals to stay updated with the changing world, supported both personal and professional development, enhanced problem-solving skills, and made positive contributions to society. In the study, it was determined that the area in which the preschool teachers felt most adequate was communication with the mother with cultural awareness and expression adequacy, and the areas where the competencies related to entrepreneurship and foreign language communication (Pınarcık, Özözen Danacı, Deniz, & Eran, 2016). Ayra and Kösterelioğlu (2015) addressed the relationship between lifelong learning tendencies and professional self-efficacy among teachers. When the research findings were analyzed, teachers' lifelong learning tendencies and professional self-efficacy were determined to be at a good level.

Participants remarked that we needed lifelong learning to improve the quality of our lives. They noted that the primary goal of lifelong learning was to facilitate individuals in adapting to the information society, taking control of their lives at a more successful level, and actively participating in every aspect of life within the social, economic, and cultural context. They stated that lifelong learning allowed us to develop skills and use them in our daily lives, improving our quality of life and making us feel more effective.

The third research question was, “What is the purpose of lifelong learning?” According to participants, the goals of lifelong learning were “accessing educational opportunities,” “enhancing knowledge and skills,” and “building up qualified human resources.” They believed that the objectives of lifelong learning were to provide education and training to individuals in both rural and urban areas, making educational opportunities accessible. They noted that lifelong learning sought to enhance education across all segments of society, whether at school, at home, or in the workplace, without limitations of location.

Participants stated that lifelong learning helped them acquire new knowledge and develop new skills. They noted that lifelong learning allowed them to have new experiences and accomplish personal and professional goals. They remarked that lifelong learning focused on learning activities that empowered individuals to adapt to various needs in their daily lives by acquiring the skills demanded by the times. They added that another goal of lifelong learning was to build up qualified human resources to promote economic development. They concluded that lifelong learning contributes to the academic and professional development of individuals. Chapman and Aspin (2001) also stated that the objectives of lifelong learning encompassed constructing a highly skilled workforce, fostering personal development for a more successful life, and contributing to the strength of society.

The fourth research question was, “What factors do you think affect lifelong learning?” Participants stated that “motivation,” “education systems,” and “social and cultural changes” affected lifelong learning. They believed that motivation acted as a catalyst for lifelong learning by influencing initiation, persistence, adaptability, and overall satisfaction with the learning process. They implied that cultivating and sustaining motivation was essential for individuals to embrace a lifelong learning mindset and reap the benefits of ongoing personal and professional development. They believed that the success of an individual in their lifelong learning journey was not solely reliant on personal efforts. Organizing social policies in a direction that supports and facilitates lifelong learning is equally crucial. This involves creating an environment where educational opportunities are accessible, encouraging a culture of continuous learning, and providing resources to support individuals in their pursuit of knowledge and skills throughout life. Social policies can play a pivotal role in promoting a lifelong learning mindset at both the individual and community levels, fostering a more educated, adaptable, and resilient society (Günüç, Odabaşı, & Kuzu, 2012). Moreover, it was revealed that there was a positive, moderate-level relationship between the two variables. Besides teachers, life-long learning tendencies were higher in favor of female teachers. Teachers lifelong learning tendencies did not differ by branch or experience. Similarly, the self-efficacy beliefs about educational internet use did not differ by gender, branch, or experience (Erdamar, Demirkan, Saraçoğlu, & Alpan 2017).

Participants stated that education systems also affected lifelong learning. The structure and accessibility of formal education systems can impact individuals' access to lifelong learning opportunities. The curriculum design within education systems plays a role in shaping individuals' perspectives on learning. A curriculum that emphasizes real-world relevance and practical skills may foster a positive attitude toward lifelong learning. The learning environment created by education systems can impact individuals' attitudes toward ongoing learning. An encouraging and supportive environment promotes a culture of curiosity and exploration beyond formal education. Educators within the system can inspire a lifelong learning mindset through their teaching methods and attitudes. Teachers who encourage curiosity, critical thinking, and a love for learning contribute to fostering a culture of lifelong learning. Education systems that acknowledge and validate informal learning experiences can encourage individuals to pursue various learning opportunities outside formal settings (Günüç, Odabaşı, & Kuzu, 2012). Education systems that prioritize the development of essential skills such as critical thinking, problem-solving, and adaptability prepare individuals for a lifelong learning journey. These skills are valuable in navigating a rapidly changing world (Cornford, 1999, 2000, 2002).

Participants noted that social and cultural changes also affected lifelong learning. Social and cultural changes shape the context in which lifelong learning occurs. A culture that values learning, embraces diversity, and adapts to societal shifts contributes to creating an environment where individuals are more likely to engage in continuous learning throughout their lives. Lifelong learning is affected by numerous direct and indirect factors, such as age, economics, politics, motivation, role models, learning for fun, cultural context, literacy, attitudes, competencies, skills, ICT, and experience (Günüç, Odabaşı, & Kuzu, 2012). It is compatible with the literature.

Lifelong learning is crucial for personal development, professional success, adaptability to change, and contributing to a vibrant and dynamic society. It is a key element in navigating the complexities of the modern world and promoting continuous growth and fulfillment throughout one's life. Teachers also play a significant role in this process because they are role models. In the realm of technological advancements, lifelong learning is

imperative for two significant reasons: to elevate the overall welfare level of society and to foster individual development. The goals of lifelong learning encompass not only boosting the knowledge and skills of individuals but also the creation of qualified human resources. In addition to individual motivation, sociocultural changes are other important factors affecting lifelong learning. Teachers influence their students in every aspect. Being a role model for students, especially their attitudes during lessons. Professional development is important for teachers.

Recommendations

Policymakers play a crucial role in promoting lifelong learning by introducing effective educational policies. Additionally, educators should prioritize lifelong learning and organize related training programs, contributing to the welfare of society and enhancing the overall quality of life.

Lifelong learning allowed individuals to stay updated with the changing world, supported both personal and professional development, enhanced problem-solving skills, and made positive contributions to society. So the teachers should enhance their professional development.

Teachers implied that cultivating and sustaining motivation was essential for individuals to embrace a lifelong learning mindset and reap the benefits of ongoing personal and professional development.

Acknowledgements or Notes

The author received no financial support for the research and/or authorship of this article.

Ethical Approval

Ethical permission (2024/02) was obtained from the Van Yuzuncu Yıl University Social and Humanities Ethics Board Presidency for this research.

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International Journal of Contemporary Educational Research

Volume 11, Number 2, June 2024, Page 262-275 Article Type:Research Article

Determination of Creative Story Writing Skill Levels of Secondary School 7th Grade Students

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Abstract
The present study aimed to determine the creative story writing skill levels of seventh grade middle school students. The research is a quantitative research and designed in survey design. The sample of the research consisted of a total of 121 seventh grade middle school students who were determined by convenience sampling technique. The research data were obtained by having the students in the sample write creative story texts and evaluating these texts with a rubric developed by the researcher. The collected data were presented as descriptive statistics (frequency, min. and max. values, mean and standard deviation) with the help of statistical software. As a result of the research, the scores of the students' creative story writing skills were generally low and medium level. In addition, in terms of sub-dimensions, except for two sub-dimensions (imagination, form), the students' mean scores were found to be low and medium level.

Keywords: Writing, Creative Writing, Rubric

Citation
Öztürk, E. & Duran, E. (2024). Determination of creative story writing skill levels of secondary school 7th grade students. *International Journal of Contemporary Educational Research*, *11*(2), 262-275. https://doi.org/10.52380/ijcer.2024.11.2.643

Received	26.01.2024
Accepted	29.05.2024
Publication	15.06.2024
Peer-Review	Double anonymized - Double Blind
Ethical Statement	This article is a part of Ebru Öztürk's PhD dissertation entitled 'The Use of Orff-Schulwerk Approach in the Development of Creative Story Writing Skills of Seventh Grade Secondary School Students', prepared under the supervision of Erol Duran.
PlagiarismChecks	Yes - iThenticate
Conflicts of Interest	Theauthor(s) has noconflict of interesttodeclare.
Complaints	ijceroffice@gmail.com
Grant Support	The author(s) acknowledge that they received no external funding in support of this research.

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Introduction

Writing Skills

The reason why human beings are at the highest level among the created beings is that they have the ability to think. This power of thinking is embodied through language skills and becomes visible to all beings. The limits of the power of thinking have not been completely drawn, and it does not seem possible to draw them. However, the source of thought can be reached to a certain extent through linguistic expressions. The most important linguistic skills in reaching this source of thought are speaking and writing skills. Although speaking skill has gained qualifications depending on daily life skills, writing skill has always been seen as a more complicated skill area for human beings, and societies have formed and protected their identities through writing skill.

One of the most basic needs of human beings from the first moment they come into the world is the need to tell. This need for expression is best fulfilled through speaking and writing skills. For this reason, writing skill is the most important communication tool as old as human history (Coşkun, 2013; Onan, 2012). Writing skill arises from a need. In writing skill, the need to express one's feelings and thoughts lies in the psychological infrastructure of the individual. Therefore, the most important effect of writing skill is psychological relaxation. It is also possible to say that writing skill is a need and a personal necessity (Binyazar & Özdemir, 2006).

However, there are four basic language skills in Turkish education and these language skills develop as a whole with each other. In other words, it is not possible to consider listening skill separately from speaking, speaking from reading, and reading from writing. Depending on the developmental process of the individual, these language skills develop in a certain order. Writing skill is the last link in this developmental sequence.

"Writing is the expression of feelings, thoughts, wishes and events with some symbols in accordance with certain rules." (Özbay, 2014) In other words, writing is the expression of events, feelings and thoughts using the best expression possibilities of language within the framework of a certain plan (Aktaş & Gündüz, 2013). According to Ataman, writing is the transformation of feelings and thoughts into action (2013). In order to perform this action in a clear and understandable way, some mental skills are needed. Through these skills, the individual learns to sort, limit and organise thoughts (Yılmaz, 2012).

As stated, writing skill is the last of the four basic skills. In other words, the individual acquires this skill in the last place. In the formation of reading-writing skills, writing is the main point where mental processing takes place. In short, it can be said that skills function through writing (Göçer, 2013). Therefore, writing skill is the most difficult and the last skill to develop among basic skills. For this reason, certain road maps, methods and techniques are necessary in the development of writing skills. According to the Turkish Lesson (Grades 1-8) Teaching Programme, the writing skill is expected of students "to express their feelings, thoughts, dreams, designs and impressions, as well as their opinions and theses on a subject in accordance with the rules of written expression by making use of the possibilities of language, to turn writing into a habit of self-expression and to improve these skills of those who have the ability to write" (MoNE, 2017).

In the name of Turkish lesson, expressing feelings and thoughts within the framework of logic and by following certain rules is a behaviour expected from every individual. However, putting forward a new and original product in writing skill is a situation that requires talent to a certain extent and can be developed to a certain extent. The basic level expected from writing skills is to enable individuals to express themselves comfortably and properly through writing, and to make individuals who have the ability to produce creative products realise and reveal their latent powers.

The Importance of Writing Skills in Language Teaching

The foundation of writing skills is laid in primary school years. These studies, which primarily aim to provide students with the habit of writing correctly and properly through dictation studies, are replaced by studies such as writing from the senses, planned writing, free writing and creative writing in the late primary and secondary school years. The individual carries out creative writing activities in a large part of his/her education life. Therefore, the building block of writing skill is to mobilise students' writing, producing and creating power (Göçer, 2013).

In order to enable students to express their feelings and thoughts through writing, composition studies are frequently carried out in the teaching process (Kantemir, 1997). Conducting composition studies in accordance with their qualifications is very important for producing Turkish products, thinking in Turkish and hearing in Turkish (Burdurlu, 1975). However, in our country, grammatical mistakes are mostly corrected on writing

products, the product is handled formally, the content element is put into the background and the elements that are considered as the basis of writing are almost never emphasised (Coşkun, 2005).

In educational institutions, writing activities produced through essay writing are applied in the form of transferring experiences, feelings and thoughts, experiences, dreams about a subject with certain rules (Göçer, 2010). This type of practice takes students into a single mould and hinders their productivity and creativity skills. In order to prevent this effect, it is necessary to go beyond the adopted understanding and to have writing activities of different types and contents.

There are some principles that are necessary to produce a qualified writing product in writing studies. These principles are as follows:

- To have a good observation ability
- Have a good thinking power
- Being a good reader
- Being a good listener
- To have a rich vocabulary and language awareness
- To have richness of emotion and imagination
- Pursuing originality by utilising the power of poetic language (Arıcı & Ungan, 2012).

The effective use of these principles in writing products is a factor that increases the quality of that product. However, writing skill is affected by many factors. The factors affecting writing skills can be generally listed as follows: educational status, socioeconomic level, gender, environmental factors, psychological factors, interests and needs, perception of the world, abilities, etc. While writing, one or more of these factors directly or indirectly affect the writing process. For this reason, the teacher has great duties in order to remove the negative effects of these factors on writing.

Approaches in Writing Education

In the traditional understanding of writing education, a product-based writing approach was adopted, and the reactions of the student in the writing process were not taken into consideration and his/her writing ability was tried to be evaluated only through the product he/she produced. In such an understanding of writing, the teacher has been in the position of an educator who gives the subject and waits for the student to produce a composition based on this subject, evaluates the resulting product, sometimes gives feedback and sometimes does not give any feedback. In writing activities carried out with this understanding, in which only the product is evaluated in the writing process, the student is given an aphorism or a concept and expected to produce a text (Zorbaz, 2005). In this case, writing education cannot be expected to be successful and a writing education cannot be mentioned. Because writing skill is a whole with pre-writing, during writing and post-writing processes.

With the change in understanding in the field of education, process-based writing approach has been adopted in the field of writing. In process-based writing, the teacher is not in the position of giving directives, but takes on the role of an educator who guides the student and often even writes with him/her. It is possible to talk about a master-apprentice relationship in the process-based writing approach. In this approach, while the master teaches the apprentice, he also develops his own creation process (Oral, 2008). In process-based writing, which is dominated by the contemporary approach, the writing process is a whole with pre-writing, during writing and post-writing processes. The student is not evaluated only by the product he/she has produced, but is evaluated based on the sum of all these processes. In this case, the understanding that reduces writing skill to a single product has been replaced by the whole process with a holistic perspective.

In summary, an intellectual preparation stage is required for the writing process. In order to complete the mental preparation process of writing skill, stages such as preparation, determining the purpose, choosing the appropriate method for the purpose, limiting the subject, concentrating attention and applying the rules of writing are necessary (Yetkin & Daştan, 2008). Individuals who complete the necessary steps in these stages cannot be expected to have unsuccessful writing process. In this way, it can be expected that writing skill both develops the individual mentally, provides psychological satisfaction and arouses a sense of success in the individual.

Writing Methods and Techniques

Among the Turkish curricula, the most comprehensive source of methods and techniques in the field of writing is the 2005 Primary Education Turkish Lesson (Grades 6, 7, 8) Curriculum. It is possible to summarise the writing methods and techniques in this programme as follows:

1. **Note Taking:** It is the selection of important points in a text in order to provide convenience in subsequent study processes and transferring them to writing with the student's own expressive power.
2. **Summarising:** It is the students' abbreviation of a text in a way that does not disrupt the semantic integrity.
3. **Gap Filling:** It is the completion of missing parts of a text in accordance with its context.
4. **Writing by Selecting from the Word and Concept Pool:** This is a type of writing in which it is aimed to ensure permanence by using newly learnt words or concepts in the written text. Students create their products by choosing from a pool of concepts, proverbs or idioms.
5. **Free Writing:** It is the expression of students' feelings and thoughts on a subject without limitation. It is the most commonly used type of writing to develop creative writing skills.
6. **Controlled Writing:** It is the writing of the created writing work in accordance with the language rules.
7. **Guided Writing:** It is a type of writing in which students write based on the information they have acquired in the classroom environment on a determined topic.
8. **Creative Writing:** It is a type of writing in which students bring concepts to the writing environment through association and create a product by establishing semantic connections between these concepts. Generally, literary genres such as poetry, novels and stories are preferred.
9. **Text Completion:** It is the act of completing a partially given text without disturbing the logical integrity. It is the most preferred type of writing in creative writing studies.
10. **Making Predictions:** In this type of writing, which is similar to the text completion method, students make predictions about how the text will end instead of producing a new product for the text.
11. **Reconstructing a text with their own words:** This is a type of writing in which students express an existing text in their own style in order to improve their self-expression skills.
12. **Writing Another Text Based on a Text:** It is a type of writing based on the students' elaborating the current situation and creating a new text of a different type by bringing their creativity skills to the learning environment through a sample text. The answer to the question "How would I write if it were me?" is sought.
13. **Writing by Acting on the Senses:** It is a type of writing in which the student is asked to create a text that expresses the effect of the product presented to the student on the student by activating one or more of the senses.
14. **Writing as a Group:** Each small group is asked to write a text on a different aspect of a topic. Their latest texts are combined. It is a type of writing based on co-operation.
15. **Critical Writing:** It is a type of writing in which the positive or negative sides of any event or situation discussed in the classroom environment are handled objectively by the student.

Among these writing types, apart from creative writing, the writing types that most appeal to creativity skills are free writing, text completion, making predictions, recreating a text in one's own words, creating another text based on a text, and writing from the senses.

Creative Writing

Creative writing skill is a skill that is not yet fully emphasised in Turkey, but is highly valued in developed countries and is developing day by day (Ataman, 2013). In order to keep up with the developments, writing activities in which individuals can produce more original products and crown the limits of their own expression possibilities with creative products should be one of the main goals of writing skill in Turkish teaching.

In creative writing activities, the main goal is to reveal ideas as a product (story, poem, etc.) and to convey original ideas in an impressive way by presenting them fearlessly (Oral, 2008). The main purpose of creative writing activities implemented in many European countries and the USA is to develop self-confidence by revealing the hidden powers that people carry within themselves and to enable them to discover themselves (İpşiroğlu, 2006). Especially in the USA, writing commissions prepare a report every year to determine the status of the public in writing skills and what can be done to improve this skill (Ungan, 2007).

In creative writing, individuals express their feelings and thoughts through various types of writing (stories, tales, poems, posters, etc.) (Kaya, 2013). According to Demir (2013), creative writing is the free transfer of all existing auditory, visual, verbal, symbolic stimuli through writing by reconstructing and creating new meaning relations between these stimuli. The act of writing alone contains creativity skills, but the creation of genres such as stories, tales and poems based on creative writing is considered as creative writing.

Kuvanç (2008) lists the main aims of creative writing as follows:

- Developing the ability to imagine through the perceptions obtained from the senses; combining the ability to think, intuit and observe.
- Ensuring interaction by combining the world of logic and feeling. Thus developing thinking and perception skills.
- Developing interpretation, criticism and questioning skills.
- To be able to develop a unique form of expression by going beyond prejudices and to be able to express in a unique way, to find your own self.

In line with these aims, it can be said that creative writing in educational environments has many benefits for teachers and students. Březinová (2007) lists the benefits of creative writing as follows:

For students

- It provides children with the opportunity to express themselves.
- Improves communication skills.
- It contributes to the affective, cognitive and social development of individuals.
- Develops imagination skills.
- It helps them to make sense of the real world by creating fictional elements.
- It allows them to use their personal experience.
- It facilitates the transfer of knowledge and skills to other fields.
- It gives a sense of responsibility.
- Contributes to the presentation of what they produce and defence of their ideas and opinions.

For teachers

- It enables children with different abilities to be recognised.
- It teaches tolerance to various views and opinions.
- It allows to direct children's learning experiences.
- Increases communication with other branches through project work.

Methods and Techniques Used in Developing Creative Writing Skills

In creative writing studies, people are expected to present a situation that does not exist or to reveal unusual connections between existing situations. For this reason, there are some methods or educational tools that are effective on creative writing skills (Kaya, 2013):

1. **Utilising Poetry:** Through poetry, children can convey daily events in a creative and impressive way, and thus reflect their feelings and thoughts. In order for poetry to be used to stimulate creativity skills, it is necessary to arouse an interest or curiosity in students. At this point, the most important task falls to teachers.
2. **Utilising the Story Genre:** The story is perhaps the most effective genre in which students can express themselves comfortably and creatively. While this genre is replaced by fairy tales in young children, especially in secondary school and later education levels, the story is a frequently preferred genre in terms of arousing interest and curiosity. At the same time, stories make the writer free. The free expression of feelings and thoughts is the most important quality sought in creative writing. In this sense, not only stories but also short stories can be preferred.
3. **Utilisation of Music Field:** It is known that music has been used as an educational tool since ancient times. It is very effective in educational environments in terms of appealing to the senses, mobilising emotions and being directed towards the feeling world of individuals. At the same time, music is also a very effective genre in increasing students' motivation, motivating them towards the lesson and developing their creativity skills. There are many researches that the use of music improves students' creativity skills.
4. **Utilising the Cartoon Genre:** Caricature is the drawing of an event by exaggerating it and making use of humour. Cartoons generally appeal to individuals from all age groups. In addition to being a visual stimulus, it also evokes psychological effects through the element of humour. In addition, the basis of this genre is based on creativity skills. Because in cartoons, there is an act of presenting the current situation with unusual connections. For this reason, cartoons are directly related to creativity skills and are used extensively in developing creativity skills.
5. **Use of Station Technique:** The station technique is a technique designed for all participants to contribute to a product. Students contribute to the product in each station in line with their own knowledge and skills. The station technique is directly related to creativity skills since it is based on the principle of continuing an action left unfinished by another group in a way that does not disrupt the semantic integrity. At the same time, it is a technique that students enjoy. Therefore, it is possible to use the station technique effectively in developing creativity skills.

The Status of Creativity and Creative Writing Skills in Turkish Curricula

The learning-teaching process of educational institutions is connected to the system through curricula. Because it is difficult to achieve success in education-teaching activities that are not progressed in a planned manner. For this reason, curricula are prepared and the understanding adopted by making changes on these curricula is indirectly transferred to the students.

In Turkey, a radical change of understanding in the field of education was introduced in 2005. The traditional understanding of education was abandoned and a constructivist approach was adopted in which the learner constructs his/her own learning experiences, the teacher guides the student, and more than one sense is transferred to the learning environment in the learning-teaching process. According to the constructivist approach, the student learns the most permanent and qualified information by doing and experiencing. For this reason, students are expected to take an active part in the learning environment.

In Turkish language teaching, there are four basic language skills and grammar as learning areas. The four basic language skills are listening, speaking, reading and writing, which play a key role especially in the development of students' communication skills. It can be said that the curriculum, in which these learning areas took their full form in accordance with their nature, came into force in 2005.

Writing, which is one of the four basic language skills, is an area where students especially hold back and show reluctance. There are many reasons for this, but with the constructivist approach, various writing activities that enable students to enjoy the writing process have started to be planned. Before the constructivist approach, the basis of writing activities was an understanding in which students were given a concept with dictation studies and asked to create a text based on this concept. With the constructivist approach, writing types such as creative writing and writing from the senses have taken their place in the curricula. Since before 2005, these types of writing were not included in the curricula, only the curricula that came into force in 2005 and after will be taken as basis.

The 2005 Turkish Language Teaching Programme's main objectives include "enabling students to build new ones on the knowledge they have acquired, to produce alternative and creative solutions to the problems they encounter, to reach the consciousness and courage to work together in a group, to participate in production and discussion activities, to use different research methods and techniques, to understand events and situations accurately based on their own experiences, and to gain an interdisciplinary perspective" (MoNE, 2006). This approach aims to mobilise students' productivity and creative skills and to help them gain a sense of togetherness through an interdisciplinary approach.

In the writing skill area of the programme, it is foreseen that creating genres such as poems, stories and novels requires special talent and creativity, but that each individual can express his/her feelings and thoughts clearly, comprehensibly and in accordance with the rules. Teachers are expected to make the writing process enjoyable and help students develop the habit of writing.

Again in this programme, creative writing and writing from the senses are included among writing types. In creative writing, students are expected to write the words that come to their minds through association on a blank white paper in order to produce a creative product, and then to produce a product by establishing semantic integrity between these words.

In writing based on the senses, students are asked to write about the effects of these elements on them with the help of tools such as music and pictures. In this type of writing, one or more than one of the senses is expected to be activated. The curriculum that includes creative writing and creativity skills in the widest way is the 2005 Turkish Language Curriculum. There are also examples of activities for creative writing in the programme.

In the 2015 Turkish Curriculum, it is stated that it aims to raise individuals with the skills of "using Turkish correctly, effectively and beautifully, critical and creative thinking, communication, problem solving, research, using information technologies, entrepreneurship and decision making" (MoNE, 2015). In addition, in the general objectives section of the programme, it is emphasised to develop scientific, constructive, critical and creative thinking, self-expression, communication, cooperation, problem solving and entrepreneurship skills. In the aforementioned programme, it is emphasised that "process-based writing approach" is adopted in the writing skill learning area. In this programme, it is aimed for students to write narrative texts at the 5th, 6th, 7th, 8th grade level, but although the steps to be applied in this writing process are expressed, it is not specified what kind of activities can be used in the writing process. According to the 2005 Turkish Language Teaching Programme, it can be said that creativity and creative writing skills are included at a more limited level.

In the 2017 Turkish Language Teaching Programme, in the "Competencies" section, the importance of students' creative expression of opinions, experiences and feelings by using various mass media, including music, performing arts, literature and visual arts, is emphasised. At the same time, communication in the mother tongue, initiative and entrepreneurship, cultural awareness and expression are mentioned. In terms of outcomes, creativity skills are included as a method or technique in speaking, listening and writing skills at different grade levels. The learning outcomes for creativity skills are as follows:

- ***T.6.2.3.Applies speaking strategies.***

It is ensured that methods and techniques such as free, guided, creative, memorisation technique and speaking by selecting from the word concept pool are used.

- ***T.7.2.3. Applies speaking strategies.***

It is ensured that methods and techniques such as participatory, creative, guided, empathising, discussion and critical speaking are used.

- ***T.8.1.14. Applies listening strategies.***

It is ensured that they apply methods and techniques such as selective, creative, critical, empathising, note-taking listening.

- ***T.8.2.3. Applies speaking strategies.***

It is ensured that methods and techniques such as creative, guided, empathising, discussion, persuasion and critical speaking are used.

- ***T.8.4.4. Applies writing strategies.***

It is ensured that methods and techniques such as note-taking, summarising, critical, creative, free writing, writing by choosing from a pool of words and concepts, writing from a text and senses are used.

In this programme, as in other programmes, it is aimed for students to write narrative texts at the 5th, 6th, 7th, 8th grade level, but there is no information about which activities can be used while writing narrative texts, although it is stated what they should pay attention to while writing these texts.

In addition, in the 2019 Turkish Lesson Teaching Programme, there is a learning outcome "Writes narrative texts" at every level from the 3rd grade level to the 8th grade level. However, there are no detailed activity examples for students to gain these outcomes.

Creative Story Writing Skills

When it comes to creative writing products, literary genres such as a new poem, story, novel, scenario come to mind first. Among these genres, stories attract a lot of attention because they are event-based texts, have an immersive quality and are genres that children can create freely. For these reasons, the story genre is widely used in creative writing studies. The main characteristic of the story genre is that it is a creative genre. These products should be utilised in the development of individuals' creativity skills and they are widely utilised. In this study, the facilitating effect of the story genre was utilised to develop creativity skills.

Writing skill basically requires producing a product. While producing this product, individuals use their high-level thinking skills effectively and they use their creativity skills actively, especially since they are faced with the situation of creating a new product.

Many theories have been developed on creativity skills and many examples of activities have been prepared to develop creative writing skills (Robinson, 2001; Güner, 2004; Özözer, 2005; İpşiroğlu, 2006; Oral, 2008). Developing creative writing skills through writing stories, poems and scenario texts are the most well-known of these activities. Because these genres, which are basically based on the principle of producing a new product, which are based on shaping the fiction plan of the writing with unusual connections, and which consist of the harmony formed by these connections with each other, are the most effective genres that can develop creative writing skills.

Within the scope of Turkish lesson, story genre is widely used as a tool to develop students' creative writing skills. Because the story genre is a genre that children enjoy both reading, listening, writing and changing the course of events through continuation. The main aim of this study is to develop students' creative writing skills and to ensure that they become original, consistent, contemporary, qualified individuals in all areas of life. In order to enable them to use their creativity skills in other areas, they were firstly provided to develop their creativity in the field of writing skill, which is the most difficult skill area in language education. In order to achieve this goal, the facilitating effect of the story genre was utilised. Unlike other studies conducted in this field, it was tried to

determine how the element of space, that is, the out-of-class activities prepared to develop creative writing skills, would bring about a change in students' creative story writing competences.

This research was conducted to determine the Creative Story Writing Skill Levels of 7th grade secondary school students. In line with this purpose, answers to the following sub-objectives were sought:

1. How are the creative story writing skill levels of 7th grade secondary school students?
2. How are the levels of secondary school 7th grade students in the dimensions of imagination, originality, different perspective, content, language and expression, and form in their creative story writing products ?

Method

Model

In this study, survey design, one of the quantitative research approaches, was used. The survey design is a research approach that aims to describe an existing situation as it is. In survey research, the element investigated is tried to be defined in its own conditions and as it is (Karasar, 2012, p.77).The data are analysed with the help of statistical tools and the results are interpreted (Creswell, 2012, p.376). In this study, since it was aimed to examine the situation in its natural environment without changing the existing conditions, the survey design was used to determine the creative story writing skill levels of seventh grade secondary school students.

The Sample of the Research

The study group of this study consisted of 121 (63 male, 58 female) seventh grade secondary school students (63 male, 58 female) studying in the 2023-2024 academic year in Kütahya province of Turkey, taking into account the convenience sampling technique.

Measurament Tool

The research data were obtained with the rubric (Appendix-1), which was developed to collect data and published in the literature as an article to evaluate the creative story writing skills of secondary school seventh grade students.

This scoring key consists of 6 dimensions as "imagination", "originality", "different perspective", "content", "language and expression" and "form"; 25 items; and 5 levels as "strongly agree", "agree", "somewhat agree", "disagree" and "strongly disagree".

The target group of the scoring key is secondary school students. With a student-centred approach, it was deemed appropriate not to give 0 to low level students in measurement and evaluation practices. Thus, the lowest score that a student can get from the scoring key is 20 and the highest score is 100.

Procedure

Firstly, the students were introduced to the researcher and a brief information was given about the details of the study. Then, in order to ensure an environment of trust between the students and the researcher and to obtain more reliable research data, a chat environment was provided with the students and the questions that the students wanted to ask were answered by the researcher.

Since it is thought that students' trust in the researcher and the research process during the research process will increase the reliability of the data obtained, after the trust environment provided, the researcher asked the students to create a creative story text with a free theme. The teacher allowed time for the students to create a creative story text for two class hours (40+40), and no additional work (music, rhythm, guidance, etc.) was included in this process. Finally, the creative story works written by the students were scored with a rubric developed by the researcher. Thus, the data collection process of the research was terminated and the data analysis phase was started.

Analysing the Data

The rubric developed by the researcher was used to analyse the data. In order to ensure the reliability of the data obtained, the research data were scored by two different raters and the research scores were formed as a result of the compatibility of these scores with each other. The data collected for the first and second sub-problems of the study were presented as descriptive statistics (frequency, min. and max. values, arithmetic mean, standard deviation).

Results and Comments

In this section, the findings obtained from the research data are presented in tables by considering the order of the sub-problems in the research.

Findings Related to the First Sub-Problem

The findings related to the first sub-problem of the study, "How are the creative story writing skill levels of 7th grade secondary school students?" are presented in Table 1.

The results of the descriptive statistics conducted to determine the creative story writing skill levels of seventh grade secondary school students are given in Table 1.

Table 1 Descriptive Statistics of Students' Scores

	Total Points	N	min	max	X̄	ss
Scale Total	100	121	26,00	97,80	62,46	21,43

When Table 1 is analysed, according to the results obtained from a total of 121 students, the lowest score of the students is 26, while the highest score is 97,80. The average score of the students is 62,46.

The lowest score a student can get from a story he/she wrote even if he/she did not produce any creative product is 20. According to the information in the table, it was seen that the students received the lowest score of 26 points from a creative story text. This situation shows that the students could not produce enough creative products.

Findings Related to the Second Sub-Problem

The findings related to the second sub-problem of the research, "How are the levels of 7th grade secondary school students in the dimensions of imagination, originality, different perspective, content, language and expression, and form in creative story writing products?" are presented in Table 2.

The results of the descriptive statistics conducted to determine the levels of creative story writing skills of seventh grade secondary school students according to the dimensions are given in Table 2.

Table 2 Descriptive Statistics of Students' Scores According to Dimensions

Category.	N	min	max	X̄	ss
Imagination	121	3,60	18	11,21	5,79
Authenticity	121	4,40	22	13,77	4,40
Different Perspective	121	3,60	18	9,81	5,23
Content	121	4,20	21	12,93	5,05
Language and Expression	121	4,20	13	8,67	2,38
Format	121	3,60	8	6,05	1,25
Total	121			62,44	

When Table 2 is analysed, it is seen that the mean scores of the students in some dimensions are close to the maximum scores. For example, the minimum score in the "imagination" dimension is 3,60 and the maximum score is 18. In this dimension, the student average was determined as 11,21. Similarly, in the "form" dimension, the minimum score is 3,60 and the maximum score is 8. Similarly, the average score of the students in this dimension is 6,05.

According to Table 2, it is seen that the mean scores of the students in some dimensions are close to the averages of the minimum and maximum scores. For example, the minimum score in the "originality" dimension is 4,40; the maximum score is 22 and the average score of the students is 13,77. In the dimension of "different point of view", the minimum score of the students is 3,60 and the maximum score is 18. The average score of the students in this dimension was 9,81. Similarly, the minimum score of the students in the "Content" dimension is 4,20 and the maximum score is 21. The average score of the students in this dimension was 12,93. Finally, the minimum score of the students in the "language and expression" dimension is 4,20 and the maximum score is 13. The average score of the students in this dimension was 8,67.

According to the findings in the table, it was observed that students received scores close to maximum values in some dimensions and sub-dimensions, while they received scores close to average scores in some dimensions and sub-dimensions. The number of dimensions with scores close to maximum scores is less. This situation shows that students' creative story writing skills should be improved.

Conclusion, Discussion and Suggestions

The act of creation is an action that has existed with humanity. People have had creativity skills as a product of the act of creation and they have attached importance to this skill area (Günel, 2006). As a result of the creativity skill, actions such as creating new products, reaching a new and unknown creation by starting from known connections have gained importance, and thus humanity has not been erased from the stage of history and has preserved its existence until today.

Increasing interest in the concept of "creative writing" in the world started with the recognition that creative writing is not a talent but a developable skill (Kaya, 2012). Thus, the understanding that every individual can produce a creative product and can make significant progress in this creativity skill over time has become dominant.

In this study, creative story texts were written by seventh grade secondary school students and these texts were evaluated with the "creative story writing rubric" developed by the researcher. According to the results of the evaluation, it was observed that the scores of the students in the sub-dimensions of creative story writing such as "originality", "different perspective", "content", "language and expression" were close to the minimum and maximum scores. Among the reasons why the students could not achieve high scores in these sub-dimensions, it is thought that the students could not achieve the desired success due to reasons such as the fact that the activities planned for creative story writing studies in the Turkish Language Teaching Programmes are implemented only in the form of bringing the continuation of the story and the students are not compared with additional activities in this sense, studies on multiple choice questions are carried out more, Turkish lesson hours are not sufficient enough to create and evaluate writing studies.

According to the research findings, it was determined that the students scored above the average in the dimensions of "imagination" and "form". Including expressions that stimulate the imagination is one of the basic features of a creative story text. When students produce creative story texts, they inevitably tend to include elements of imagination. Because producing a new product requires the effective use of imagination elements in itself.

The fact that the students received high scores in the "form" dimension is thought to be due to the fact that in the studies carried out under the title of "composition" for years, there were steps that evaluated the products created by the students only in terms of form, thus causing the students to become sensitive in terms of form while producing a new text. However, although it is thought that the "form" element in a creative story text should be evaluated in the background, a qualified creative story should use a clear, clear and simple language (Calp, 2010). In addition, it is the duty of every citizen to use the language in accordance with the rules and in a qualified manner. It is a step that should be applied in every text type for students to produce products by paying attention to spelling and punctuation rules in the texts created (Akyol, 2008; Demirel & Şahinel, 2006; Parlatır, 2010; MEB, 2015).

When the total scores of the students in the study were analysed, it was found that the students received an average of 62.46 points from the rubric, which they could get at least 20 points and at most 100 points. This is a result that cannot be underestimated. The findings obtained show that the students are not below the average of 50 points in creative story writing skills, and if qualified studies are carried out, positive feedbacks will be obtained for the development of creativity skills.

Recommendations

In the study, it was determined that the students had a level slightly above the average in creative story writing. In this direction,

- In today's world where producing new knowledge has become more valuable, field workers should be equipped in terms of creativity skills and researchers should focus on thesis and article studies on creativity skills.
- Experts should share the results of their studies with teachers who are actively involved in the field and ensure theoretical-practical co-operation.
- Taking the research data into consideration, the Turkish Language Teaching Programme should be updated and activities that prioritise creativity skills should be included.
- Turkish lessons and course hours should be reorganised in a way that allows students to create creative products, the weight of grammar subjects should be reduced in curriculum studies and time should be given to creative activities that make students more active.
- Activity plans and lesson materials for creative writing activities should be designed and these plans should be shared with teachers who are active in the field.
- Priority should be given to activities that make students active and stimulate their creativity skills not only in language but also in all skill areas.

Acknowledgements or Notes
I would like to thank my supervisor Prof. Dr. Erol Duran for his contributions.

Author (s) Contribution Rate
This study was prepared with the contributions of the first responsible author (60%) and the second responsible author (40%).

Ethical Approval
Ethical permission (04.11.2021 dated 2021-bDecision No. 202) was obtained from T.C. Rectorate of Uşak Unıversıty Social Sciences And Humanities Scientific Research And Publication Ethics Committee İnstitution For This Research.

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Annex 1

Size	Articles	Strongly Agree (5)	I agree (4)	Partly Agree (3)	Disagree (2)	Strongly Disagree (1)	Description
B.1. Imagination (18 points)	**B.1.1.** Includes expressions that stimulate the imagination in his/her stories. **(6 Points)**						
	B.1.2. Uses fantastic (extraordinary) elements in his/her stories **(6 points)**						
	B.1.3. Gives examples from outside daily life in his/her stories. **(6 Points)**						
B.2. Originality (22 Points)	**B.2.1.** Uses expressions that reveal his/her own feelings and thoughts in his/her stories. **(9 Points)**						
	B.2.2. Makes use of the element of curiosity in his/her stories **(8 points)**						
	B.2.3. Uses humour (laughter) elements in his/her stories **(5 points)**						
B.3. Different Perspective (18 Points)	**B.3.1.** presents original ideas in his/her stories **(6 points)**						
	B.3.2. Includes divergent thoughts in his/her stories **(6 points)**						
	B.3.3. Produces alternative solutions to solve an existing problem in his/her stories. **(6 Points)**						
B.4. Content (21 Points)	**B.4.1**. writes his/her stories coherently. **(4 Points)**						
	B.4.2. Establishes impressive connections between events in his/her stories. **(4 Points)**						
	B.4.3. writes his/her stories by adhering to the plan of exposition-node-solution. **(4 Points)**						
	B.4.4. Finishes his/her stories with an effective ending. **(3 Points)**						
	B.4.5. Creates original characters in his/her stories **(3 points)**						
	B.4.6. Creates effective spaces in his/her stories **(3 points)**						
B.5. Language and Expression (13 Points)	**B.5.1 Expresses** his/her feelings and thoughts fluently in his/her stories. **(3 Points)**						
	B.5.2. conveys his/her feelings and thoughts clearly and						

	comprehensibly in his/her stories. **(3 Points)**						
	B.5.3. Uses a simple and sincere style in his/her stories **(2 points)**						
	B.5.4. Includes images in his/her stories **(1 point) ***						
	B.5.5. Uses symbols in the expressions in his/her stories. **(1 point) ***						
	B.5.6. Makes use of similes in his/her stories **(1 point) ***						
	B.5.7. Uses language effectively in his/her stories **(2 points)**						
B.6. Format (8 Points)	**B.6.1.** Writes his/her stories by paying attention to the page layout. **(2 Points)**						
	B.6.2. Uses punctuation marks appropriately in his/her stories. **(3 Points)**						
	B.6.3. Writes his/her stories in accordance with the rules of spelling. **(3 Points)**						

- Items B.2.3, B.5.4, B.5.5, B.5.6 are optional items. Stories that do not contain these items but fulfil the other item characteristics at a high rate are also accepted as creative stories.

International Journal of Contemporary Educational Research

Volume 11, Number 2, June 2024, Page 276-292 Article Type: Research Article

Social Studies and Love of Art: Students and Teachers Enlighten the Connections

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Abstract
Art and artistic activities that play a significant role in the lives of both children and adults are an important requirement for all individuals. Cultures develop, expand, and enrich through artistic activities, which are important for the development of visual literacy, especially in social studies. The present study aims to determine the reflection of various artistic branches in the social studies course and the student interest and love that art is considered to evoke in the context of the social studies course. In the study, qualitative research methods and techniques were used to review relevant documents and determine participant views about the role of art in social studies. First, the current Turkish social studies curricula and textbooks were analyzed. Then, an interview form developed by the authors was applied to 80 students attending all grades in a public middle school and 3 teachers employed in these schools in one of the major cities in Turkey. The attributes employed by the teachers and students in the interview form were analyzed with thematic and content analysis. The study findings demonstrated that the curricula and textbook achievements that allow activities in several art branches are limited. However, despite the limitations, the study findings demonstrated that the students were interested in different art branches and evidenced the support of social studies in the development of interest and love for certain learning areas.

Keywords: Social studies, Education, Art, Secondary school

Citation
Eguz, S. (2024). Social Studies and love of art: students and teachers enlighten the connections. *International Journal of Contemporary Educational Research, 11*(2), 276-292. https://doi.org/10.52380/ijcer.2024.11.2.586

Received	24.11.2023
Accepted	12.06.2024
Publication	24.06.2024
Peer-Review	Double anonymized - Double Blind
Plagiarism Checks	Yes - iThenticate
Conflicts of Interest	The author(s) has no conflict of interest to declare.
Complaints	ijceroffice@gmail.com
Grant Support	The author(s) acknowledge that they received no external funding in support of this research.

Introduction

Art is a concept between human ideas and habitat, nature, and society (Uçan, 1997). This concept invents problems to be solved and improves creative thinking, adequate and immediate decision-making, analysis, and resolution skills in individuals. Furthermore, art offers various possibilities for enthusiasts to explore and emphasize cultural diversity. Thus, it encourages research on the methods that would establish a common and mutual bond of love and underlines sensibility (Özsoy, 2003; Zhang, Shankar, & Antonidoss, 2022). Therefore, art, which is a vital part of life, contributes to social life; students acquire healthy knowledge about life through art (Freedman, 2000). Because art provides a constant flow of knowledge about history, nature, and people and establishes communication with them, In this context, emotions that are interpreted in the mind are shaped by sounds and words, transforming a stone into a meaningful object, notes into music, and paints into a beautiful painting, achieving an artistic interpretation (Yılmaz, 2005).

Since art is a personal act, the development of aesthetic emotions in the education and instruction process is an important precondition for an active society. Because glorification of the human spirit, satisfaction of the spiritual needs of individuals based on psychological differences, and the creation of psychologically balanced individuals are the essence of the efforts, goals, methods, and principles of human education and instruction activities (Türkdoğan, 1984), it is known that each individual has unique interests and skills. Educational environments should provide all opportunities to develop and guide these interests and skills. Only then would education support and develop creativity. In this period, educational activities should ensure that students can think based on artistic images and conduct artistic activities in different disciplines to improve their creativity (Bousalis, 2022; Uysal, 2005). It was observed that artistic activities in education increase concentration skills and support the development of social identity. The educational environment should engage the children, develop identity, challenge the students, and be safe. Such an environment could be provided by allowing the children to have artistic and cultural experiences. Skills to think, develop a perspective, and criticize could only develop in artistic environments. Furthermore, artistic activities encourage metaphorical, rational, and scientific thinking in children (Chemi & Du, 2017). Thus, art is not an instrumental area that serves the general education of the child and provides a foundation for mental life but a discipline whose purpose is directly based on art and the functions of art (Eisner, 1987; Hansen & Puustinen, 2021). Especially the multi-faceted, cultural, communicative, informative, enlightening, and behavior-enhancing functions of art make it versatile and significant. Individuals without artistic awareness and love could neither recognize or enjoy artworks, cultural values, or natural beauties, nor could they protect them or contribute to the cultural development of society. In 1998, important steps were taken in the curriculum based on the "Art Enlightenment Grows in New York Schools" project in the United States of America, since arts courses were considered instruments that both motivate the students for innovations and novel courses and develop student skills and discipline.

Art is affected by all social developments in life and has taken on a completely different fragmented structure with the removal of the modernist classification and unification influences in the postmodern era. Contemporary art, which has been changing due to the conditions of the current age, could be comprehended when associated with various disciplines in life (Coşkun Onan, 2016). One of the most important ways to have an interest in and love art and to reflect this love in every field of life is through integration with various disciplines other than creating art or an education in art. Because art could supplement various fields such as history and social studies and guide and support an interdisciplinary-thematic program (Garcia, 2021; Fowler & McMullan, 1991; Rosfiani, Akbar, & Neolaka, 2019).

Social studies is a field of study that combines literature, art, and social sciences with an interdisciplinary approach in order to gain basic citizenship competencies (NCSS, 2002). Based on the current social studies curriculum in Turkey, social studies is an inter-disciplinary field. To train creative individuals who can observe, think visually, be aware of their emotions and ideas, be sensitive to their environment, and love nature, people, and art based on the requirements of their age, different branches of art should be integrated into the social studies curriculum. Because most historical and cultural knowledge is based on art produced by different cultures in various eras (Akhan, Demirezen, & Çiçek, 2023; Christensen, 2006; Clark & Hooser, 2018; Herberholz, 2010; Manifold, 1995), by integrating different branches of art with social studies courses,

- Students could make sense of the knowledge framework of social studies through art,
- Students could improve their creativity in their imaginations by establishing novel and different connections with social studies content,
- Students could reconstruct their knowledge to develop transfer skills associated with learning experiences.

Social studies instruction and learning are more effective when they are integrative, meaningful, value-based, active, and challenging. Thus, the National Council for Social Studies emphasized that the program should integrate current social studies concepts, principles, and theories in the fields of anthropology, economics, archeology, geography, history, art, law, psychology, sociology, philosophy, religion, and political science (NCSS, 2002). Integration of the arts into the social studies curriculum is an excellent method to allow students with different learning styles to become active learners. Art reflects the unique cultural perspectives of various cultures and illuminates cultural interactions and migration patterns. Also, learning about different cultures through art could help reveal stereotypes. Thus, art is both an effective learning and instruction process and a critical component of the social studies course. When students have the opportunity to study historical artworks, they begin to understand how art reflects social values and how art is influenced by social, political, and economic beliefs in a society. However, several social studies teachers know that the students would benefit from an integrated approach; however, they are also aware that adopting this approach is harder than ever. Because the teachers, who are overwhelmed by the intensity of the material they need to instruct in a semester, hesitate to add something new to an already dense curriculum (Koçoğlu & Egüz, 2019; Milam, 2020; Sizemore, 2011). Thus, educational, entertaining, and easily accessible curriculum material is required to support teachers and promote their creativity.

Literature Review

There are studies in the literature on art in the social studies course. The review of the studies conducted in Turkey demonstrated that the sufficiency of art topics in the social studies discipline (Ercan, 2007; Erkan, 2010) and the views of pre-service social studies teachers on art (Akhan, 2013; Çıldır Gökaslan, 2020) were studied. Furthermore, theoretical and practical applications were conducted in social studies courses that employed movies (Aktekin & Çoban, 2012; Birkök, 2008; Demircioğlu, 2007; Efe, 2010; Gezici & Demir, 2018; İçen & Tuncel, 2020; Muratalan, 2010; Öztaş, 2009; Savaş & Arslan, 2014; Wagner, 2021), literary works (Akkuş, 2006; Aktın, & Karaçalı Taze, 2021; Akyol, 2011; Arslan, 2014; Leg, 2008; Beldağ & Aktaş, 2016; Çiftçi, 2011; Demir, 2011; Erdoğan, 2007; Öztürk, 2007; Öztürk & Otluoğlu 2002; Sömen, 2021; Tekgöz, 2005), musical arts (Bölücek, 2008; Egüz, 2022; Göksu, 2020; Gülüm & Ulusoy, 2007; Sidekli & Coşkun, 2014), and painting (Güngor Akıncı, 2016; Moore, 2022). There are also studies on the employment of art in social studies courses around the world (Arnspiger, 1933; Briley, 2002; Burstein & Knotts, 2010; Champoux, 1999; Colley, 2012; Costa, 2005; Desai, Hamlin & Mattson, 2010; Dorminey, 2015; Hailat, et al., 2008; Kosky & Curtis, 2008; Liles, 2007; Manifold, 1995; Marcus, 2005; Morris & Obenchain, 2001; Palmer & Burroughs, 2002; Romero, 1996; Rosenstone, 2001; Schmidt, 2007; Smith, 1999; Stoddard, 2009; Vitulli & Santoli, 2013; Taylor, 2008; Taylor, Monck & Ayoub, 2014; Walker, 2006; Watts, 2007; Woelders, 2007; Zwirn & Libresco, 2010). Russell (2012) discussed five classroom-tested methods for instruction with movies in social studies class. Each method included various movie scenes that could be employed with recommended focus questions and interview topics. Freedman (2000), who suggested a general overview of social perspectives in art education, emphasized that visual arts were vital for all societies and focused on the common ground between various perspectives in revealing the complexity, diversity, and cultural position of representations in education. On the other hand, Zwirn and Libresco (2010) argued that art, which is a relatively new trend in the evaluation process in American history education, offered interesting opportunities for integration into education as a catalyst for student participation in social equality issues. Colley (2012) presented a pilot scheme for pre-service social studies teachers where they could utilize performance arts for active instruction of social studies courses. The project included three components: (1) studying a script; (2) attending a real performance of a professional play; and (3) attending four workshops. The views of the participants revealed that the employment of performing arts in social studies not only encouraged student participation and learning but also gave the students, whose voices were rarely heard in the class, an opportunity to rise to the occasion. The above-mentioned studies contributed to the research problems and methods in the literature. The literature review revealed that despite the availability of several studies on art and the presence of a direct relationship between social studies and art, the number of studies that investigated the correlation between social studies and arts in secondary education is limited, and most studies concentrated on the employment of art as a material in the course. Although the employment of art in social studies education is generally supported, there is no multidimensional study of the views of secondary education students and social studies teachers on the issue and the inclusion of art in the current curriculum. Furthermore, there are no international or national studies on the role of social studies courses in improving the love of art among the students in Turkey. The above-mentioned studies generally conducted surveys to determine participant views on the use of art in social studies. Although the employment of surveys and similar instruments has several advantages, these tools do not make it easy for the students to reflect on their daily experiences and individual differences. The findings presented in these studies, on the other hand, were limited to a theoretical framework rather than developing individual meanings and reflecting differences. However, in studies where qualitative research methods and techniques are employed,

interviews are preferred for data collection. Since in-depth and versatile data are the primary objective in qualitative research, it is necessary to employ various qualitative research techniques to determine the approaches of the participants to art. Because, although the artistic elements are frequently encountered in daily life, it is necessary to make sense of these works, integrate them into the course, perhaps raise awareness about self-interests and skills in social studies, experience the artworks, and determine their role in the sustenance of this interest. Although the current studies discuss several promises of arts integration, they lack a complete map of the current reasons for arts integration into social studies education. Further studies are required to fulfill these promises and realize art integration into social studies courses. Due to the power of art topics in social sciences instruction, especially in primary education, the views, perceptions, and competencies of middle school students on art topics and instruction are important. Furthermore, it could be suggested that the determination of reflections of art and various branches of art in the social studies course and its role in raising the interest and love of art among the students would be important to support the design of applicable arts integration in social studies courses.

The Questions of Study:

Q1: What is the prevalence of art topics in the 5th, 6th, and 7th grade social studies curricula introduced in 2018 in Turkey?
Q2: How do middle school students describe art?
Q3: According to middle school students, which art branch is prevalent in the social studies course?
Q4: Does the social studies course have a positive or negative impact on students' love of art?
Q5: How do social studies teachers describe the significance of social studies courses in the acquisition of a love of art by the students?

Method

Research Design

The study was conducted using the qualitative research paradigm. Qualitative research includes the production of knowledge to understand individuals' lifestyles, behaviors, stories, social change, and organizational structures (Strauss & Corbin, 1990). The study was planned with a "phenomenology" design, a qualitative research model. Phenomenology contributes to a deeper understanding of experiences by revealing accepted assumptions about the methods individuals employ to make sense (Starks & Trinidad, 2007). Thus, the present study aimed to reveal the personal experiences of the participants through an in-depth and multidimensional analysis of their experiences in the social studies course.

Participants

In qualitative research, purposive sampling is often used in the assignment of participants. Although purposive sampling allows several strategies, the researcher generally employs self-judgment to determine the sample based on suitability for the aim of the study (Balcı, 2004; Yin, 2011). In the present study, maximum diversity sampling (a purposive sampling technique) was employed to determine the views of the participants on the role of social studies in the development of the love of art. Twenty 5th grade, 20 6th grade, 20 7th grade, and 20 8th grade students—a total of 80 students—were assigned the maximum diversity sampling method, where the grade was accepted as the source of maximum diversity. The main purpose of maximum diversity in the present study was to determine whether similar phenomena were shared among various cases and to reveal the different dimensions of the problem based on diversity. Assuming that different study designs illuminate different aspects of a phenomenon, maximum diversity sampling could be used to develop a holistic approach to the studied phenomenon (Suri, 2011). The social studies curriculum is implemented between the 5th and 7th grades in middle school. Eighth grade is also instructed in middle school, but the social studies content is provided in different courses (history, geography, and citizenship). The 8th grade students who took the social studies course in previous years were also included in the study.

The sample size was determined based on the aim and problems of the research, and it was concluded that the sample should include middle school students and social studies teachers in the same school. The study included 80 middle school students in all grade levels and three social studies teachers in a public school in a moderate socioeconomic neighborhood in a major Turkish city. In the study, the names of the participants are not mentioned due to ethical reasons. Thus, the participating middle school students are coded as 5th grade A1... A20, 6th grade B1... B20, 7th grade C1... C20, and 8th grade D1... D20. Social studies teachers were coded as Teacher 1, Teacher 2, and Teacher 3.

Data Collection and Analysis

Qualitative research data collection tools and analysis methods were employed in the study. The study data was collected with an interview form that included structured and semi-structured questions and was developed by the author for students and teachers based on the new 2018 social studies curricula and textbooks for 5th, 6th, and 7th

grades. Document reviews were conducted on the course syllabus and textbooks. Document review is a systematic review of existing documents or records, which could include the analysis of written materials that include information sources on the research topic (Karasar, 2007). Although semi-structured interviews are generally perceived as an easy data collection method (Wengraf, 2001), individual interviews have certain benefits. It is easier for the author to guide the interview to maximize the benefits of the study through one-on-one interviews (Brinkmann, 2014). However, the author should consider various issues when developing the interview form and focus on the depth of the data that would be collected (Kallio et al., 2016). Although the author could develop a list of predetermined questions, semi-structured interviews offer participants a chance to discover topics that could be important (Longhurst, 2016). During the development of the structured and semi-structured interview questions, a literature review was conducted for content validity. All interviews were conducted by the author, and the interviews were recorded. Student interviews lasted approximately 8–12 minutes, and social studies teacher interviews lasted about 15–18 minutes. Later, audio records were transcribed by the author. In a structured question, students were asked to write a paragraph about art to determine the semantics of art for them. Thus, the students were allowed to think in detail about the concept. This approach aimed to avoid "interviewer bias or subjectivity," which could lead to the collection of more data from certain participants and less superficial data from others.

Content analysis, a qualitative data analysis technique, was employed to analyze the student data in the study. Content analysis could be used on qualitative or quantitative data both with an inductive or deductive approach. The approach is determined by the aim of the study. If there is not sufficient data on the phenomenon before or if the data is fragmented, the inductive approach is recommended (Lauri & Kynga Laur 2005). In the present research, the inductive approach was adopted. Both inductive and deductive analysis processes entail three main stages: preparation, organization, and reporting stages (Elo & Kyngäs, 2008). As recommended by Elo and Kyngäs (2008), the content analysis phase of the study was designed as presented in Figure 1.

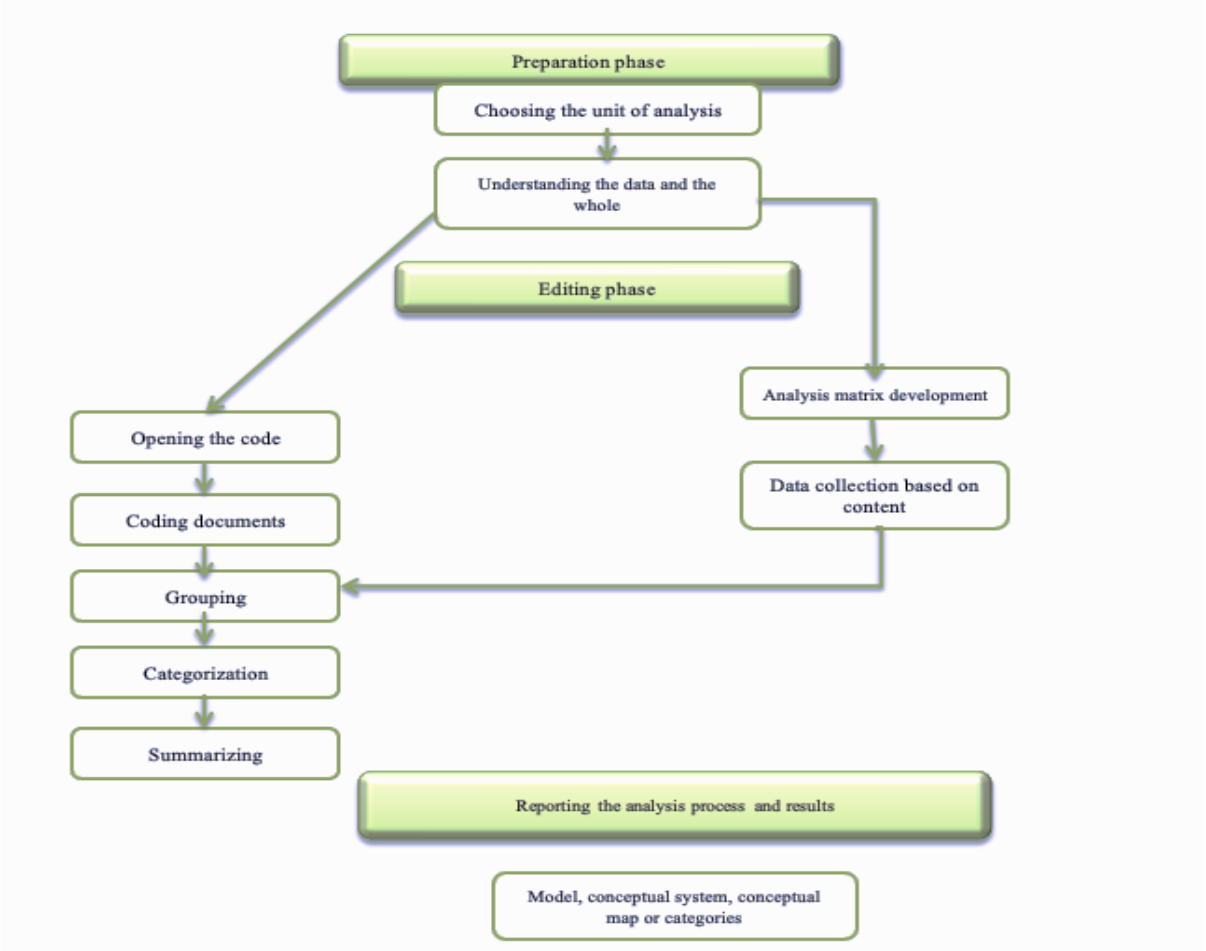


Figure 1. Content analysis preparation, organization, and result stages

The analyses were conducted by the author, and a faculty member assisted the author during the coding process. Each research problem was accepted as a theme. Sub-themes were developed based on the codes determined based on research problems. The "agreements" and "disagreements about the themes and sub-themes were discussed and edited. The reliability of the study was determined with the Miles and Huberman (1994) formula (Reliability = Agreement / Agreement + Disagreement X 100). Thus, the intercoder agreement was calculated at .91. Since the agreement rate was above 70%, it was concluded that the study was reliable (Miles & Huberman, 1994). Descriptive analysis was employed to analyze the teacher data in the study. The descriptive analysis method was preferred since the basic theme in the conceptual framework and analysis was predetermined in the study section conducted with the teachers (Yıldırım & Şimşek, 2016).

Necessary ethical permissions were obtained during the implementation process of the study. Ethical permission (19/01/2023 date, No. E.273374) was obtained from Inonü Unıversıty Social Sciences And Humanities Scientific Research And Publication Ethics Committee İnstitution For This Research.

Results

Based on the aim of the study, the first focus of the study findings was the determination of the prevalence of art topics in 2018 5th, 6th, and 7th grades social studies curricula, achievements, and textbooks in Turkey. Then, the student descriptions of art, the prevalent art branches in the social studies course, and the impact of the social studies course on the students' love of art were investigated. Finally, the significance of the social studies course in the acquisition of the love of art by the students was reported based on the views of the social studies teachers.

Art in 2018: 5th, 6th, and 7th Grade Social Studies Curricula, Achievements, and Textbooks

The literary and artistic activities conducted by the students, including music, literature, performing arts, and visual arts, positively affect the creative expression of ideas, experiences, and emotions, cultural awareness, and articulation of the students. Thus, in the 2018 social studies curriculum (Table 1), it was recommended to supplement the social studies course with literary works such as epics, legends, fairy tales, folk tales, proverbs, poems, and folk songs; encourage students to read literary works such as historical novels, novels, stories, travel writings, anecdotes, and memoirs that would allow them to enjoy the course topics; and support the predetermined achievements with modern and traditional artworks such as music, painting, miniatures, calligraphy, engraving, sculpture, architecture, ceramics, movies, and theater (MoNE, 2018).

Table 1. Learning areas and achievements associated with art in 2018 5th, 6th, and 7th grade Social Studies Curricula (MoNE, 2018)

	Grade	Learning Area	Achievement	Detail
CURRICULUM 2018	5	CULTURE AND HERITAGE	5.2.1. Recognizes the significant contributions of Anatolian and Mesopotamian civilizations to the human history based on concrete ruins. 5.2.2. Promotes natural beings, historical spaces, objects and works in the surroundings. 5.2.3. Compares the cultural characteristics of various places in our country and these in the vicinity and determines similarities and differences between these. 5.2.5. Evaluates the historical development of cultural elements in daily life.	The continuity and variations of cultural elements in daily life are stressed.
	6		6.2.1. Deducts the geographical, economic, and cultural characteristics of the first Turkish states in Central Asia.	Epics, inscriptions and other sources are utilized.
	7		7.2.5. Gives examples of Ottoman cultural, and artistic, and aesthetic styles.	Examples from travel records of local and foreign travelers are included.

The review of Table 1 would demonstrate that there are a limited number of achievements in the “Culture and Heritage” learning area, one of the 7 learning areas in the current social studies curriculum (MoNE, 2018), that allow activities in various branches of art. Among the achievements, the highest number of artistic elements are included in the 5th grade, and the least number of artistic elements are included in the 6th and 7th grade curricula. There are a total of 98 achievements in the 5th, 6th, and 7th grade social studies curricula. Thus, it was determined that art was included in six achievements. The review of the social studies textbooks revealed that the 5th grade textbook included arts such as theater, architecture, ceramics, sculpture, and traditional handicrafts (carpet weaving, copper ornamentation, marbling art, tile art, and tin smithing) (Şahin, 2018); the 6th grade textbook included sculpture, painting, handcrafts such as belt buckles inlined with coral, jade, agate, and turquoise, and bronze ornaments (YIlmaz et al., 2018); and the 7th grade textbook included arts such as Ottoman architecture, Ottoman tile art, marbling, calligraphy (fine writing and decoration), glassmaking, weaving, lapidary, and pottery (Gültekin et al., 2018).

The Prevalent Art Branches in Arts and Social Studies Courses Based on Student Views

To determine the views of the students on art, they were asked to write a short paragraph about art and start the paragraph with the definition of art. The descriptions of art according to the students are presented in Table 2.

Table 2. Student descriptions about art

Theme	Sub-Category	Frequency (f)	Percentage (%)
Expression of emotions	Area of freedom	12	28,75
	Expression of intense emotions	9	
	Heartfelt	2	
	Total	23	
An expression of life	Mirror of life	9	25
	Beautifying	7	
	Assigning meaning	3	
	Evaluating	1	
	Total	20	
A reflection of skill	Visualization skill	13	23,75
	Competence	4	
	Achievement	2	
	Total	19	
A means of entertainment	Entertaining	6	12,5
	Source of joy	4	
	Total	10	
Art as a need	Resting	4	10
	Relaxation	2	
	Education	2	
	Total	8	

As seen in Table 2, 28.75% (f = 23) of secondary school students who were asked to describe art stated that it was an “expression of emotions." The most common sub-category in this theme was “area of freedom." This theme was followed by'mirror of life','reflection of skil','means of entertainment', and ‘art as a need’ themes. The students produced five themes and 15 categories. Certain student descriptions are presented below.

> “Art is work conducted as one wishes in a place where nobody is involved.” (D12, An Expression of Emotions: An Area of Freedom)
> “I turn some bad things into beautiful ones and draw them on paper. This is called art.” (A3, An expression of life—beautifying)
> “Not everyone can draw what the teacher assigns. I can do it because I study at home. Art is something that not everyone has.” (C7, A Reflection of Skill: Competence)
> “The paintings drawn by people who can paint beautiful lines without overflow are art.” (A10, A Reflection of Skill and Achievement)
> “Art is the songs, pictures, and music that relax one when played or drawn.” (D1, Art as a Need: Relaxation)

Social studies is an indispensable course, especially for primary and middle school students, to evaluate their immediate environment and local society and then to understand global problems and events. Thus, data on the employment of art elements in social studies and the awareness of the students about these elements are presented in Table 3.

Table 3. Inclusion of art by the teachers in social studies classes based on student views

	5th grade (f and %)	6th grade (f and %)	7th grade (f and %)	8th grade (f and %)
It is featured in social studies courses	11 (55%)	6 (30%)	4 (20%)	7 (35%)
It is not included in social studies courses	9 (45%)	14 (70%)	16 (80%)	13 (65%)

As seen in Table 3, the students stated that the teachers included art in the 5th grade the most. It was determined that the highest number of participants who stated that the teachers did not include art in social studies classes were in the 7th grade. Certain student views are presented below:

> "There are several things about art not in social studies but in other courses." (A8: Art is not included in the social studies course)
> "Once in a historical subject, our teacher made us memorize a poem about history with music. I still remember it." (B11: Art is included in the social studies course)
> "We are only instructed on the topic. We do not draw pictures in that course. We also play music in the music course. Social courses are a little more about past events." (C9: Art is not included in the social studies course)
> "The teacher showed us miniatures or something about the Ottomans. It was a bit complex." (C20: Art is included in the social studies course)

Based on the views of the students on the inclusion of art by the teachers in the social studies course, it was determined that 35% (f = 28) of the participants stated that the teachers included art in the course, while 65% stated that they did not. The 28 students who stated that art was included in social studies were asked which branches of art were included in the course as far as they could remember (Table 4).

Table 4. The distribution of the art branches included in the social studies course based on the student grade

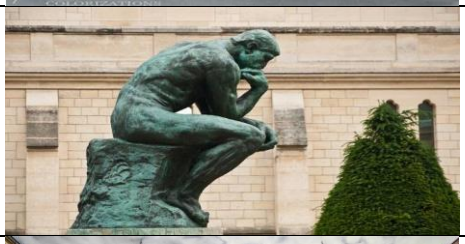
Branches of Art	5th grade (f and %)	6th grade (f and %)	7th grade (f and %)	8th grade (f and %)
Surface Arts Picture Photo Calligraphy Miniature	3 (28%)	3 (50%)	3 (75%)	1 (14%)
Volumetric Arts Sculpture	2 (18%)			1(14%)
Spatial Arts Architectural	4 (36%)		1 (25%)	
Language Arts Novel Poetry	2 (18%)	2 (33%)		4 (58%)
Sound Arts Music		1 (17%)		1 (14%)

The review of Table 4 would demonstrate that 5th grade participants stated that "spatial arts," "surface arts," "volumetric arts," and "language arts" were included in the course. Sixth grade students stated that "surface arts," "language arts," and "music" were included in the course; 7th grade students stated that "surface arts" and "spatial arts" were included; and 8th grade students stated that "language arts," "surface arts," "volumetric arts," and "music" were included. The analysis of the overall data revealed that the prevalence of surface and language arts was the highest, and that of music was the lowest.

The Impact of the Social Studies Course on the Love of Art Among Students

To determine the impact of the social studies course on students' love of art, initially, cards that included the names of artists in different branches and information about and examples of their art branch were developed, and they were asked the question, "Which of these artists would you like to be your social studies teacher?" The art branches included on the cards and the distribution of the related visuals by grade level are summarized in Table 5.

Table 5. The distribution of the artists preferred by the students as social studies teachers based on the grade

Artists	Works	Grade			
		5th (f and %)	6th (f and %)	7th (f and %)	8th (f and %)
Claude Monet (Painter)		3 (15%)	2 (10%)	8 (40%)	6 (30%)
Rodin (Sculptor)		1 (5%)	---	---	2 (10%)
Mimar Sinan (Architect)		5 (25%)	3 (15%)	1 (5%)	---
Jules Verne (Author)		1 (5%)	3 (15%)	2 (10%)	---
Fazıl Say (Pianist)		6 (30%)	8 (40%)	6 (30%)	10 (50%)
Nuri Bilge Ceylan (Film Director)		4 (%20)	4 (%20)	3 (%15)	2 (%10)

It was determined that 5th grade students mostly preferred pianists and preferred authors and sculptors the least, 6th grade students preferred pianists the most and painters the least, 7th grade students preferred pianists the most

and architects the least, and 8th grade students preferred pianists the most and sculptors and movie directors the least as their social studies teacher. The review of all grade levels demonstrated that thirty (37.5%) students preferred musicians as their social studies teachers, and three (3.75%) students preferred sculptors. The views of certain students were as follows:

> "I love my social studies teacher, but if (s)he were a painter, he would teach us everything with paintings. We would be more curious about the topics." (C2, Claude Monet-Painter)
> "I think it would be nice if the teacher carved historical personalities out of a piece of stone. We would learn. Our exhibition would be like a museum." (D9, Rodin-Sculptor)
> "I think an architect would instruct things in the social textbook better. We can understand how the work came out better." (A4, Mimar Sinan, Architect)
> "The author of every book should be the teacher, as we always follow the book." (B6, Jules Verne, Author)
> "There would be a piano in the classroom. When we were bored, the teacher would play the piano right away. We would not be too bored in the class." (A20, Fazıl Say-Pianist)
> "Since I like watching movies, it would have been better if the social studies teacher was a director. If he instructs the course while watching a movie, maybe we will remember better." (B8, Nuri Bilge Ceylan, Film Director)

The views of the students on the organization of artistic course content and activities in the social studies course are presented in Table 6.

Table 6. Student views on the organization of artistic course content and conducting art activities in social studies

Student views	Grade			
	5th (f and %)	6th (f and %)	7th (f and %)	8th (f and %)
Loving approach to the course	10 (%50)	4 (%20)	6 (%30)	11 (%55)
Non-boring	3 (%15)	7 (%35)	8 (%40)	5 (%25)
Entertaining	4 (%20)	4 (%20)	2 (%10)	4 (%20)
Better and meaningful course	3 (%15)	3 (%15)	1 (%5)	---
Imagination	---	2 (%10)	3 (%15)	---

The review of the student approaches presented in Table 6 demonstrated that 5th and 8th grade students approached the social studies course with love. The 6th and 7th grade student approaches concentrated on the removal of boring attributes from the course.

The views of 28 students who stated that the teachers included art in the social studies course and their thoughts about this practice are presented in Table 7. The 5th grade students mostly concentrated on "learning about various branches of art," the 6th grade students mostly mentioned "raising interest and love of art," the 7th grade students mostly focused on "promotion of observation," and the 8th grade students mostly mentioned "to make the course fun" categories. Analysis of the entire data revealed that the contribution of the social studies course to learning about various branches of art was mentioned the most (39%), followed by raising interest and love of art (36%), making the course fun (14%), and promoting observation (11%).

Table 7. The impact of inclusion of art in certain topics by the social studies teacher on the students

Situations Affecting Students	5^{th} grade (f and %)	6^{th} grade (f and %)	7^{th} grade (f and %)	8^{th} grade (f and %)
Learning about various branches of art	6 (55%)	2 (33%)	1 (25%)	2 (29%)
Raising interest and love of art	4 (36%)	3 (50%)	1 (25%)	2 (29%)
To make the course fun	1 (9%)	---		3 (43%)
Promotion of observation	---	1 (17%)	2 (50%)	---

The Significance of Social Studies Course in the Acquisition of the Love of Art by the Students Based on the Views of Social Studies Teachers

The participating teachers considered art as a supplementary area in social studies to supplement the instruction of universal values, national awareness, contribution to culture and heritage, observation, analysis, verbal or non-

verbal expression of emotions, to instill love of art, interpretation of topics, different perspectives, discovery of skills, and focus on the professions that would lead to self-improvement. The teacher's views were as follows:

> "Art is included in the social studies curriculum. There are related images in our textbooks. I find it positive. I think that it especially contributes to the development of students' observation skills. Sometimes, students can show their emotions and analyze them through art and visuals without reading the topics in the textbook. These are effective in the development of their love of art." (Teacher1)

> "I think social studies courses are very important in instilling a love of art among children. It is already a supplementary area in social studies. Although not all topics have art-related content, from time to time we adapt them ourselves and enrich them with examples. As much as possible, because we also have to instruct the curriculum. The use of artistic elements in the class supports the students in their interpretation of the topics. Over time, they are interested and love [the course]." (Teacher2)

> "It helps with the recognition of some things in the world. I can see their various perspectives more clearly, especially when I instruct history topics with art. The discussion of certain national attributes through art actually makes things easier. If you ask how often I do it, I cannot answer that. Frankly, I cannot go beyond the art elements included in the textbook. Unfortunately, there is not a period for art that I can discuss in detail. Children love it; in fact, when I instruct visual arts, I hear about it. I hear that they say, 'I will be a painter, an architect'." (Teacher3)

Conclusion and Discussion

Integration of the social studies course and theater, drama, music, and visual art activities could motivate students and promote self-esteem (Romero, 1996). In the study, initially, the 2018 middle school social studies curriculum and textbooks in Turkey were reviewed. The study findings revealed that certain limited achievements about various art branches were included in the "Culture and Heritage" learning area in the 2018 curriculum. It was determined that artistic elements were included in the 5th grade curriculum the most and in the 6th and 7th grade curricula the least. The review of the social studies textbooks revealed that the 5th grade textbook included theater, architecture, ceramics, sculpture, and traditional handicraft (carpet weaving, copper ornaments, marbling art, tile, and tin smithing) elements (Şahin, 2018); the 6th grade textbook included sculpture, painting, and handcrafts such as coral, agate, jade, and turquoise ornamented belt buckles and flame-shaped bronze ornament elements (Yılmaz et al., 2018); the 7th grade textbook included Ottoman architecture, Ottoman tile art, marbling, calligraphy (fine writing and decoration art), glassmaking, weaving, lapidary, and pottery elements (Gültekin et al., 2018); These arts, which are a part of Turkish national culture, play a key role in training individuals with national awareness, knowledge of customs and traditions, cultural awareness, and a love of art. In most cultures and eras, these arts have served both functional and aesthetic purposes, adding beauty and spiritual significance to daily activities. Deveci (2009) emphasized that the inclusion of cultural elements in the social studies course could promote the acquisition of social knowledge, facilitate the adaptation of the individual through socialization, and promote cooperation, empathy, thinking skills, and values such as respect, love, and tolerance. Thus, although the study findings demonstrated that limited artistic elements were included in the curricula and textbooks, the current content includes effective elements to raise the curiosity and interest of the students and allow the students to partially recognize the rich and cultural experiences that humanity has accumulated for centuries.

Art is one of the key fields that connect each generation, ensuring the sustenance of humanity (Özsoy, 2003). Most middle school students who were asked to describe art stated that art was an "expression of emotions." The review of the sub-categories of the theme revealed that most students considered art an "area of freedom." As emphasized by Çetin (2002), art is one of the most effective tools in the development of an original, free, and faithful human society. Student freedom should not be limited to promoting creativity. The more freedom they have, the more prominent the creativity will be (Uysal, 2005). The review of the main themes and categories obtained based on the student descriptions of art revealed 5 themes and 15 categories: an expression of emotions, an expression of life, a reflection of skill, a means of entertainment, and art as a need. Thus, it was determined that art meant different things for the students. The views of Freedman (2000) also support the students who considered art a means of entertainment. According to Freedman, students are not only interested in art due to formal, technical, and even special values, but also due to the fact that it allows social communication on social issues.

One of the challenges encountered by social studies teachers in middle school is helping students comprehend the associations between the various fields of instruction. 55% of the 5th grade students stated that art elements were included in the social studies course, and 45% stated that they were not. In 6th grade, 30% of the students stated

that these were included in the course, 70% stated these were not, 20% of 7th grade students stated that these were included in the course, 80% stated these were not, and 35% of the students in 8th grade stated that these were included in the course, while 65% stated these were not. The review of all responses revealed that the teachers utilized art elements mostly in the 5th grade based on student views. The highest number of participants who claimed that art elements were not included in the social studies course were in the 7th grade. Thus, it could be suggested that the achievements associated with art were mostly included in the 5th grade, which were reflected in the course content and instruction, allowing the 5th grade students to establish the required associations.

The distribution of the art branches of student interest based on the views of the 28 students who stated that art was included in the social studies course revealed that the 5th grade participants stated that "spatial arts, surface arts, volumetric and language arts" were included, 6th grade participants stated that "surface arts, language arts, and music" were included, 7th grade participants stated that "surface arts and spatial arts" were included, and 8th grade participants stated that "language arts, surface arts, volumetric arts, and music" were included. The overall analysis revealed that the participants concentrated on surface and language arts the most and music the least. However, it is necessary to focus on music. Because music has the deepest impact on the human soul among all branches of art (Biber Öz, 2001), it should be clear that the changes in human behavior through music would affect society, which in turn would affect the individual (Say, 2002). Previous findings in social studies were consistent with this finding (Gülum & Ulusoy, 2008; Hailat et al., 2008; Palmer & Burroughs, 2002).

The overall analysis of the preferred artists that the students wanted to see as their social studies teacher revealed that most wanted to see musicians as their social studies teacher, and sculptors were the least preferred social studies teachers. The preference of musicians could be considered a positive impact of the course. Cooper (1998) reported that the employment of music in education has extreme benefits. For the social studies course, it was argued that music should not only be utilized as an instruction tool but also that playing music during instruction increases the academic achievements of the students (Sidekli & Coskun, 2014). It was interesting that the participants preferred sculptors the least. Sculptures function as objects that bring people together and provide cultural exchange and integration (Öztürk Kurtaslan, 2005).

The social studies course content and classroom activities play a key role in the acquisition of critical thinking skills and the development of various thinking strategies. Thus, it could be suggested that meaningful and permanent learning would be possible through the employment of well-designed activities in the social studies curriculum. In the study, the review of student views on the organization of the social studies course content and activities about art demonstrated that 5th grade and 8th grade students mostly concentrated on an approach to the social studies course with love. Students who were interested in and loved art would focus more on social studies courses when they knew that they would have the chance to express their knowledge creatively and would participate in the class more actively. The findings demonstrated that 5th and 8th grade students were more engaged in the course, especially when the art content was instructed. It was determined that most 6th and 7th graders concentrated on the removal of the boring elements. The 5th and 6th graders concentrated on "imagination," the 7th graders concentrated on “making the course better and more meaningful," and the 8th graders concentrated on the “imagination” categories the least. Contrary to the views of the students in the present study about making the course meaningful, Laney, Moseley, and Pak (1996) employed certain art works in the instruction of economic concepts in social studies courses in middle school. Their analysis revealed that works of art had a positive impact on comprehension. Desai, Hamlin, and Mattson (2010) argued that visual arts, especially in historical topics, allow students to understand people, concepts, and events and express ideas better. Kirsten Cook, a high school teacher who integrated art into the history course, wrote, “Art often develops meaning and provides a visual context for a deeper understanding." Taylor, Monck, & Ayoub (2014).

Since its inception, art has been supposed to possess a quality of entertainment; however, it also has an educational function (Atmaca, 2008). In the present study, the views of 28 students who stated that teachers included art elements in the social studies course were obtained to determine the impact of these classes on them and their emotions. Most 5th grade students concentrated on “learning about various branches of art," most 6th graders concentrated on "raising interest and love of art," most 7th graders concentrated on “promotion of observation," and most 8th graders concentrated on "making the course fun" categories. The review of the overall responses demonstrated that mostly social studies “contributed to learning various branches of art," followed by raising interest in and love of art, making the course fun, and promoting observation. Especially in the dimension of interest and love, Taylor, Monck, and Sheikh (2014) concluded that the integration of art into social studies raised student interest and love, promoted meaningful discussions, and positively affected historical-cultural approaches.

With the integration of art into social studies courses, it would be possible to train individuals who could express themselves with artistic methods, develop visual perception, recognize, preserve, learn, and transfer their culture to future generations, and be constructive, creative, and respectful of the global cultural heritage, thus underscoring the key role that should be played by the teachers. Teachers employed in the research school, on the other hand, considered art as a supplementary field in history and social studies, stated that it promoted the instruction of universal values, the development of national awareness among the students, contributed to culture and heritage, observation, analysis, and verbal or non-verbal self-expression skills of the students, promoted the instillation of love of art, interpretation of the topics, and different perspectives, and allowed the students to focus on the fields where they could develop themselves. Thus, it was observed that the existing social studies course supported the integration of the arts and the development of a love of art among the students. Similarly, previous studies reported that active employment of art in courses had the potential to prevent rote-based learning and promoted analysis, inquiry, answering, comparison, rational thinking, and even production skills (Desai, Hamlin, & Mattson, 2010; Schmidt, 2007; Zwirn & Libresco, 2010). For the active participation of the social studies teachers in the classroom, it is necessary for them to adopt an interdisciplinary approach to infuse multicultural artistic material and instruction strategies into the learning process and curriculum. In particular, an applied, art-integrated curriculum would facilitate the student's ability to comprehend the associations between various concepts and basic ideas with a holistic approach by building knowledge and raising their interest in and love of art.

Recommendations

The following could be recommended based on the study findings:

- The students could be allowed to examine historical, geographical, and cultural images and miniatures and recreate them based on a theme with a series of artistic skills.
- Discovery work could be assigned using music, literary works, paintings, etc. from various cultures.
- Students could be provided artistic visuals, and discussion groups could be formed to determine the corresponding social studies texts for these visuals.

Acknowledgements or Notes

I would like to thank the participants who helped collect the data.

Ethical Approval

Ethical permission (19/01/2023 date, No. E.273374) was obtained from Inonü Unıversıty Social Sciences And Humanities Scientific Research And Publication Ethics Committee İnstitution For This Research.

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