

**Examining the Relationship Between Narcissism Levels of Teacher Candidates  
and Their Conceptions of Teaching and Learning**

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ORIGINAL ARTICLE

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**Abstract**

In this study, the relationship between narcissism levels of pre-service teachers and teaching and learning conceptions was examined. Demographic information form, Narcissistic Personality Inventory (NPI-13) and Teaching and Learning Concepts Scale were applied to the participants as data collection tools. This research was designed with the relational survey model. According to the data obtained from the scales applied to physical education and sports teacher candidates, there was no difference between the groups when the variables of leadership, exhibitionism, entitlement, NPI total, constructivist conceptions and traditional conceptions were compared according to gender, age, grade, department and grade point average ( $p>0.05$ ). When the variables were compared according to their working status, it was seen that there was difference in leadership scores between the participants who worked in any job and the participants who did not work ( $p<0.05$ ). There was no difference between exhibitionism, entitlement, NPI total, constructivist conceptions and traditional conceptions scores according to the study status ( $p>0.05$ ). A significant positive correlation was found between the total scores of leadership, exhibitionism, entitlement, NPI and constructivist concepts, which are the sub-dimensions of the narcissism scale, and traditional concepts ( $p<0.01$ ). As a result, the narcissism levels of pre-service teachers are positively related to both their conceptions and traditional conceptions.

**Keywords:** Physical Education, Narcissism, Learning, Teaching-Learning Conceptions.

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**Öğretmen Adaylarının Narsisizm Düzeyleri ile Öğretme ve  
Öğrenme Anlayışları Arasındaki İlişkinin İncelenmesi**

**Öz**

Bu çalışmada öğretmen adaylarının narsisizm düzeyleri ile öğretme ve öğrenme anlayışları arasındaki ilişki incelenmiştir. Katılımcılara veri toplama aracı olarak demografik bilgi formu, Narsisistik Kişilik Envanteri (NKE-13) ve Öğretme ve Öğrenme Anlayışları Ölçeği uygulanmıştır. Bu araştırma ilişkisel tarama modeli ile desenlenmiştir. Beden eğitimi ve spor öğretmeni adaylarına uygulanan ölçeklerden elde edilen verilere göre, liderlik, teşhircilik, hak iddia etme, NPI toplamı, yapılandırmacı anlayış ve geleneksel anlayış değişkenleri cinsiyet, yaş, sınıf, bölüm ve not ortalamasına göre karşılaştırıldığında gruplar arasında fark bulunmamıştır ( $p>0.05$ ). Değişkenler çalışma durumlarına göre karşılaştırıldığında, herhangi bir işte çalışan katılımcılar ile çalışmayan katılımcılar arasında liderlik puanlarında farklılık olduğu görülmüştür ( $p<0.05$ ). Çalışma durumuna göre teşhircilik, hak iddia etme, NKE toplamı, yapılandırmacı anlayış ve geleneksel anlayış puanları arasında fark bulunmamıştır ( $p>0.05$ ). Narsisizm ölçeğinin alt boyutları olan liderlik, teşhircilik, hak iddia etme, NKE ve yapılandırmacı anlayış ile geleneksel anlayış toplam puanları arasında pozitif yönde anlamlı bir ilişki bulunmuştur ( $p<0.01$ ). Sonuç olarak, öğretmen adaylarının narsisizm düzeyleri hem yapılandırmacı anlayışları hem de geleneksel anlayışları ile pozitif yönde ilişkilidir.

**Anahtar Kelimeler:** Beden Eğitimi, Narsisizm, Öğrenme, Öğretme-Öğrenme Anlayışları.

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## Introduction

In terms of the formation of learning, teaching-learning approaches are evaluated in two different ways, traditional (superficial) and constructivist (deep), which are opposite to each other when considered in a general context. At one end is the "teacher-centered" traditional approach, which focuses on defined content and knowledge transfer, and at the other extreme, there is the "student-centered" constructivist approach, which focuses on student learning and adopts a developmental approach (Cheng et al., 2009). There are some differences that distinguish traditional teachers and their classes from constructivist teachers and their classes. In a constructivist learning environment, the learner actively participates in the process, activities are interaction-based and student-centered, the learning environment is democratic, and the constructivist teacher supports students to be responsible, active, and autonomous learners, and plays a role in facilitating learning environments (Gray, 1997). While teachers with a constructivist approach prefer more student-centered teaching practices, teachers with a traditional approach prefer more didactic teaching practices (Işıkoğlu et al., 2009). Nowadays, individuals are expected to question, interpret and research rather than taking the information as it is and memorizing it or accepting this information. If the individual is active in this process, he will be able to structure the knowledge he has acquired (Aydın and Balım, 2005).

Narcissism, which is explained by an overly positive and exaggerated opinion about the self, corresponds to behavioral patterns such as self-centeredness, arrogance, ostentatiousness, and self-righteousness (Twenge and Campbell, 2015). The normal state of narcissism or the positive evaluation of one's self is actually related to high self-confidence. Normal narcissism includes self-protective experiences aimed at controlling impulses and in a way that internal independence, emotions, thoughts and experiences comply with social norms, such as self-confidence, which has a positive effect (Ronnigstam, 2005). When looking at the basic dimensions of narcissism, some personality traits that may affect teacher candidates' classroom preferences stand out. For example, within the scope of the authority dimension, the narcissistic individual, who avoids being dependent on other people at a high level, develops a belief that he is the one whose authority should be accepted, and this can feed the dominant personality trait (Bogart et al., 2004). Another dimension of narcissism is exhibitionism, which expresses the individual's belief in his own superior qualities and his motivation to show this belief to others (Atay, 2010). The exhibitionism dimension may indicate the effort of the individual with a high level of narcissism to put himself at the center of his environment. On the other hand, according to the dimension of claiming rights, which expresses the individual's expectation that those around him will consent to his every wish, it is in the nature of the individual not to empathize, to approach events only from his own point of view, and to have the feeling that other people exist only to approve and obey him (Atay, 2010). When the literature is examined;

In his study with physical education and sports candidates, Erbaş (2021) examined the relationship between teaching-learning conceptions and teaching competencies (Erbaş, 2021). Işıkgöz (2020) examined the teaching and learning conceptions of physical education teacher candidates according to various variables according to demographics (Işıkgöz, 2020). However, in our study, the relationship between pre-service teachers' conceptions of teaching and learning and their levels of narcissism was examined. Aytaç (2020), unlike our study, examined the effect of educational beliefs and educational philosophy tendencies on teacher candidates' conceptions of teaching and learning, and the sample group consisted of students of the faculty of education (Aytaç, 2020). Küsgülü (2014) investigated the happiness, hope and narcissistic personality traits of university students and examined the relationship between university students' levels of happiness, hope and narcissism (Küsgülü, 2014). Doğaner (2014) examined the relationships and differences between narcissistic personality tendencies and self-esteem, relationship satisfaction and relationship attachments of university students in the context of romantic relationships (Doğaner, 2014).

Although there are studies in the literature examining the relationship between narcissism and different variables and teaching-learning concepts with different variables, no study similar to our research has been identified.

This study aims to seek answers to the following questions:

(1) What is the relationship between pre-service teachers' levels of narcissism and their conceptions of teaching and learning?

(2) Through which sub-dimensions does this relationship emerge?

## **Materials and Methods**

### ***Model of the Research***

This research was designed with the relational survey model. The survey model is a research approach that aims to explain and describe an existing situation as it is. In this model, there is no intervention, change or influence on the problem that is the subject of the research. In other words, it is essential to correctly observe the intended situation as it exists and to reveal it by describing it (Karasar, 2000). The relational survey model is a general survey model that aims to determine the level of change or influence between two or more variables within a group (Cohen et al., 2000; Karasar, 2000).

### ***Participants***

The sample of the study (anonymized) consists of 238 physical education and sports teacher candidates studying in the 1st education at the Faculty of Sports Sciences of our University. In the study, pre-service teachers who will play an active role in the teaching process in the future are included as

participants. Considering that all departments can be teachers with formation education, the department was not distinguished in the study. The research was carried out at (anonymized) University Faculty of Sports Sciences. Among the criteria for inclusion in the study are to be studying at (anonymized) University, to be studying at the faculty of sports sciences and to be considering the teaching profession in the future. Among the reasons for exclusion in the study are to be studying at a university other than (anonymized) University and to have graduated or not to be a student and to be studying at a school other than the faculty of sports sciences.

### ***G\*Power Analysis***

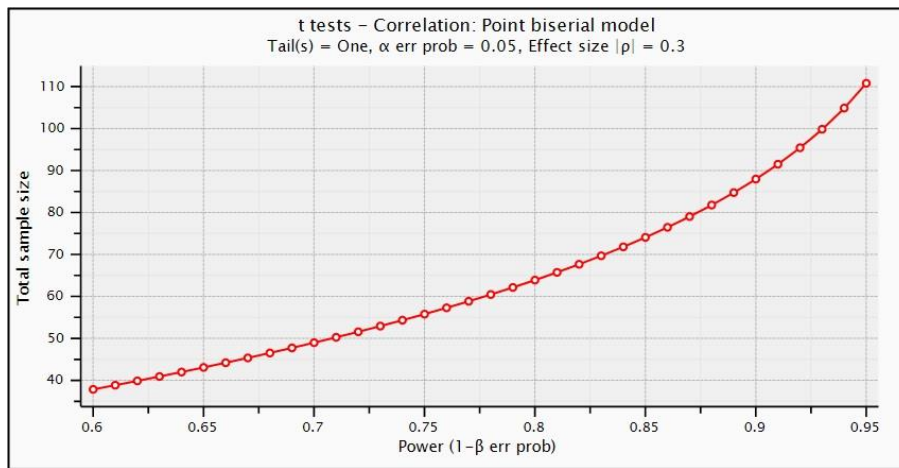


Figure 1. G\*Power Analysis

G Power 3.1.9.7 program in Figure 1 was used for the sample and the sample size was 111, the  $\alpha$  value was 0.05, the effect size was 0.3 and the Power (1- $\beta$ ) was 0.95. The sample of our study consisted of 238 people and was determined to be sufficient (Kang, 2021).

### ***Research Protocol***

Demographic information form, Narcissistic Personality Inventory and Teaching Learning Conceptions Scale were applied to the participants. The relevant scales were tested with the necessary statistical analysis and the relevant results were reported.

### ***Data Collection***

Demographic Information Form: It is a form consisting of a total of 6 questions to collect data about the participants' gender, age, grade, department, GPA and employment status. The demographic information of the participants was prepared and used for scientific purposes only to define the population of the study.

### ***Narcissistic Personality Inventory- 13 (NKI-13)***

The first and original form of the scale was developed by Gentile et al. (2013). Doğan and Çolak (2020) carried out standardization and reliability and validity studies into Turkish. The scale consists of three sub-dimensions and 13 questions. This scale measures the grandiose dimension of narcissism, which is examined in two dimensions: grandiose and fragile. Grandiosity is common to both normal and pathological narcissism. Scale sub-dimensions; It is determined as leadership, exhibitionism; entitlement. The scale, which is a self-report measurement tool, has a 5-point Likert type structure (1 = completely disagree, 5 = completely agree). It was observed that the fit indices related to the 3-factor structure of the scale (leadership, ostentatiousness, claiming) gave good results ( $\chi^2=130$ ,  $df=60$ ,  $\chi^2/df=2.17$ ; RMSEA=0.0614, CFI=0.938; TLI=0.919). In the reliability analysis of the scale, the Cronbach Alpha internal consistency coefficient was found to be .84 for the whole scale, and .78 for leadership, .72 for grandiosity, and .61 for exploitation in the sub-dimensions.

### ***Teaching Learning Conceptions Scale (TLCS)***

Teaching and Learning Concepts Questionnaire was developed by Chan and Elliott (2004). It was conducted in Hong Kong on 385 teacher candidates. The adaptation of the scale to Turkish Language and Culture was carried out by Aypay (2011) through translation-retranslation. The scale consisting of 30 items was translated into Turkish by the researcher and two field experts. The researchers conducted a literature review to determine current conceptions about learning and teaching and interviewed student teachers about their thoughts, ideas, and beliefs about teaching and learning. The researchers subjected the resulting form to EFA and CFA, and as a result of the analysis, the scale consisted of a total of 30 items with 2 factors: "Constructivist Conception" (12 items) and "Traditional Conception" (18 items). It was determined that they indicated a compatible model. Scale items are five-point Likert type. A high score obtained from the sub-factors is interpreted in a way that embraces the understanding represented by the relevant factor. The results of the Confirmatory Factor analysis of the scale indicated a compatible model (GFI = 0.93, AGFI = 0.91, RMR 0.50, RMSEA 0.54). Alpha reliability coefficient was calculated for the whole scale form and its sub-factors, and these values were determined to be .86, .84 and .84, respectively (Aypay, 2011).

### ***Analysis of Data***

The data used in the research were analyzed through the SPSS.25 program. The normality distributions of the data obtained were examined by skewness and kurtosis coefficient. It is seen that the  $\pm 2$  interval is within acceptable limits for the normality assumption (George & Mallery, 2019) and the kurtosis and skewness values in the study are within these limits (Table 2). Frequency analysis was used to analyze demographic information. In comparing groups according to variables, Independent Sample

T test was used for variables with 2 groups, and One-Way Analysis of Variance test was used for variables with 3 or more groups. Pearson Correlation test was used to analyze the relationship between variables. Consider the  $\pm 2$  range to be within acceptable limits for the normality assumption. When the kurtosis and skewness values in the study are examined, it is seen that they are within these limits (Table 1).

### ***Ethics Committee Approval***

Ethics committee approval for this study was received with decision number 290, based on the decision form of (anonymized) dated 27.06.2024. Participants were informed verbally and in writing, and their permission was obtained.

### **Results**

Table 1  
Demographic Information of Participants

	<b>Group</b>	<b>n</b>	<b>%</b>
		238	100
<b>Gender</b>	Female	102	42.9
	Male	136	57.1
<b>Age</b>	18-20 Years Old	78	32.8
	21-23 Years Old	87	36.6
	24 Years and Over	73	30.7
<b>Grade</b>	1	63	26.5
	2	60	25.2
	3	56	23.5
	4	59	24.8
<b>Department</b>	Teaching	64	26.9
	Coaching	54	22.7
	Sports Management	52	21.8
	Recreation	68	28.6
<b>General Grade Average (GPA)</b>	2.00-2.50	77	32.4
	2.51-3.00	90	37.8
	3.01 and above	71	29.8
<b>Working Status</b>	Yes	90	37.8
	No	148	62.2

Table 1 includes demographic information.

Table 2

Normality Distributions of The Scale Scores of The Participants.

Sub Dimension	N	Min.	Max.	X	SD	Skewness	Kurtosis
<b>Leadership</b>	238	4	20	13.89	3.54	-.353	.133
<b>Exhibitionism</b>	238	6	25	15.28	3.99	.079	-.234
<b>Entitlement</b>	238	4	20	13.02	3.49	-.372	.107
<b>NPI Total</b>	238	18	65	42.20	8.91	-.010	.079
<b>Constructivist Conception</b>	238	24	60	44.80	7.10	-.039	.023
<b>Traditional Conception</b>	238	38	90	65.58	10.22	.120	-.154

Table 2 includes normality distributions.

Table 3

Comparison of Participants' Scale Scores by Gender

	Group	n	$\bar{x}$	SD	t	df	p	Cohen's d	
Gender	<b>Leadership</b>	Female	102	13.77	3.04	-1.705	236	.089	-.223
		Male	136	14.46	3.11				
	<b>Exhibitionism</b>	Female	102	14.93	3.45	-1.224	235.171	.222	-.155
		Male	136	15.55	4.35				
	<b>Entitlement</b>	Female	102	12.55	3.88	-1.777	189.966	.077	-.240
		Male	136	13.38	3.13				
	<b>NPI Total</b>	Female	102	40.97	8.38	-1.854	236	.065	-.243
		Male	136	43.13	9.21				
	<b>Constructivist Conception</b>	Female	102	45.03	7.58	.426	236	.671	.056
		Male	136	44.63	6.75				
	<b>Traditional Conception</b>	Female	102	66.66	11.02	1.399	236	.163	.183
		Male	136	64.79	9.54				

Table 3 shows the comparison of teacher candidates' scale scores by gender. There is no difference between the leadership scores ( $t[236]=-1.705$ ;  $p>0.05$ ), exhibitionism scores ( $t[235.171]=-1.224$ ;  $p>0.05$ ), entitlement scores ( $t[189.966]=-1.777$ ;  $p>0.05$ ), narcissistic personality inventory total scores (NPI Total) ( $t[236]=-1.854$ ;  $p>0.05$ ), constructivist conceptions scores ( $t[236]=.426$ ;  $p>0.05$ ) and traditional conceptions scores ( $t[236]=1.399$ ;  $p>0.05$ ). This is an indication that all variables belonging to the narcissism levels of the participants and the teaching and learning concept levels have similar values according to the age.

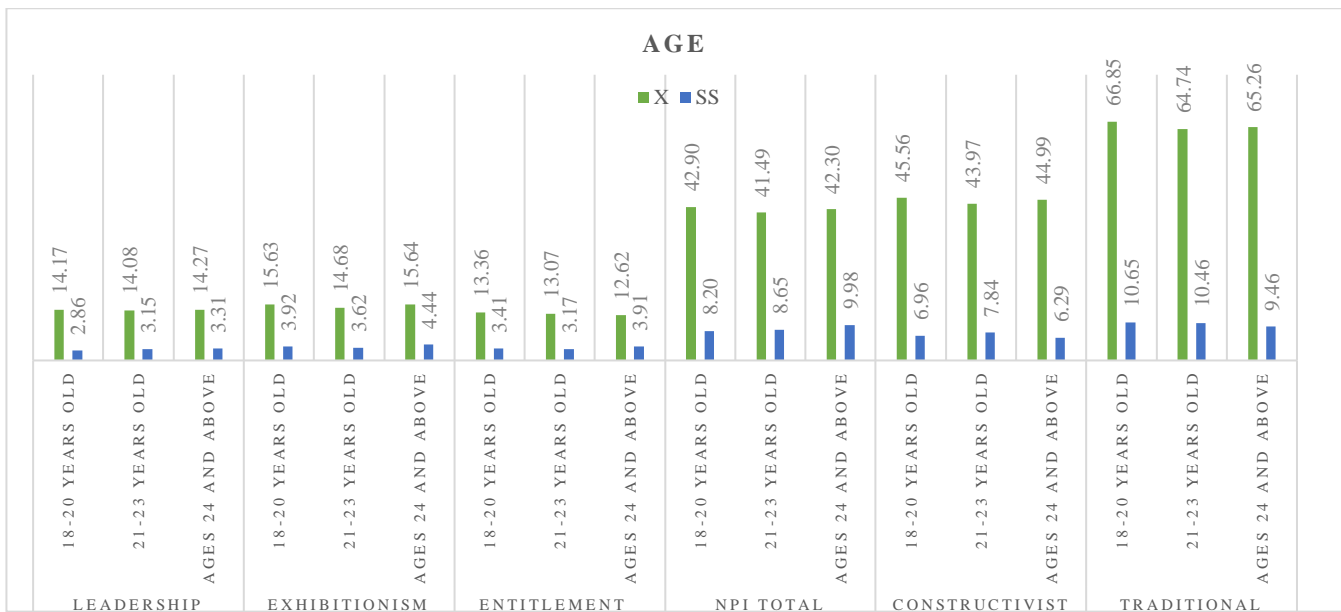


Figure 2. Comparison of Scale Scores by Age

Table 4  
Comparison of Participants' Scale Scores According to Age

Age	Group	Sum of Squares	df	Mean Square	F	p	n <sup>2</sup>
		Between Groups	1.487	2	.743	.077	.926
Leadership	Within Groups	2269.791	235	9.659			.001
	Total	2271.277	237				
	Between Groups	50.625	2	25.313	1.592	.206	
Exhibitionism	Within Groups	3735.946	235	15.898			.013
	Total	3786.571	237				
	Between Groups	21.054	2	10.527	.863	.423	
Entitlement	Within Groups	2866.795	235	12.199			.007
	Total	2887.849	237				
	Between Groups	82.023	2	41.011	.514	.599	
NPI Total	Within Groups	18768.296	235	79.865			.004
	Total	18850.319	237				
	Between Groups	108.656	2	54.328	1.076	.343	
Constructivist Conception	Within Groups	11865.062	235	50.490			.009
	Total	11973.718	237				
	Between Groups	194.519	2	97.259	.930	.396	
Traditional Conception	Within Groups	24579.128	235	104.592			.008
	Total	24773.647	237				

Table 4 shows the comparison of the scale scores of teacher candidates according to age. There is no difference between the leadership scores ( $F=.077$ ;  $p>0.05$ ), exhibitionism scores ( $F=1.592$ ;  $p>0.05$ ), entitlement scores ( $F=.863$ ;  $p>0.05$ ), NPI total scores ( $F=.514$ ;  $p>0.05$ ), constructivist



conceptions scores ( $F=1.076$ ;  $p>0.05$ ), traditional conceptions scores ( $F=.930$ ;  $p>0.05$ ). This is an indication that all variables related to the levels of narcissism and the levels of teaching and learning concepts of the participants have similar values according to the Age.

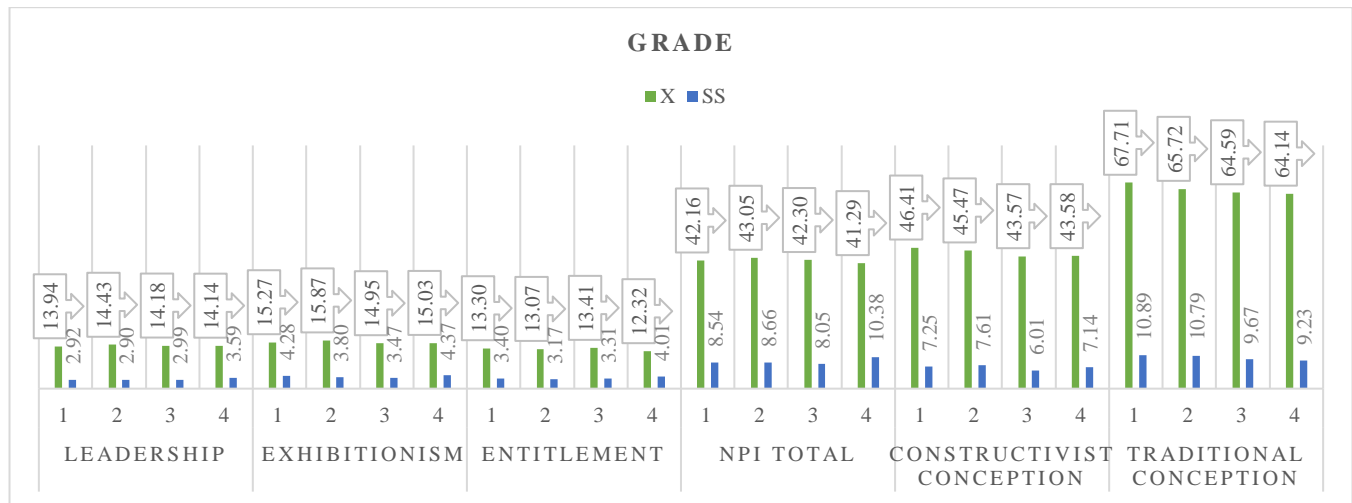


Figure 3. Comparison of Scale Scores by Grade.

Table 5

Comparison of Participants' Scale Scores According to Grade.

	Group	Sum of Squares	df	Mean Square	F	p	$\eta^2$
Leadership	Between Groups	7.668	3	2.556	.264	.851	
	Within Groups	2263.609	234	9.674			.003
	Total	2271.277	237				
Exhibitionism	Between Groups	30.454	3	10.151	.632	.595	
	Within Groups	3756.118	234	16.052			.008
	Total	3786.571	237				
Entitlement	Between Groups	42.411	3	14.137	1.163	.325	
	Within Groups	2845.438	234	12.160			.015
	Total	2887.849	237				
NPI Total	Between Groups	93.116	3	31.039	.387	.762	
	Within Groups	18757.204	234	80.159			.005
	Total	18850.319	237				
Constructivist Conception	Between Groups	363.394	3	121.131	2.441	.065	
	Within Groups	11610.324	234	49.617			.030
	Total	11973.718	237				
Traditional Conception	Between Groups	466.138	3	155.379	1.496	.216	
	Within Groups	24307.509	234	103.878			.019
	Total	24773.647	237				

Table 5 shows the comparison of teacher candidates' scale scores by grade. There is no difference between the leadership scores ( $F=.264$   $p>0.05$ ) and exhibitionism scores ( $F=.632$   $p>0.05$ ). There is difference between teacher candidates' entitlement scores ( $F=1.163$   $p>0.05$ ) according to grade. There is no difference between the prospective teachers' NPI total scores ( $F=.387$   $p>0.05$ ), constructivist conceptions scores ( $F=2.441$   $p>0.05$ ), and traditional conceptions scores ( $F=1.496$   $p>0.05$ ). This is an indication that all variables related to the levels of narcissism and the levels of teaching and learning concepts of the participants have similar values according to the Grade.

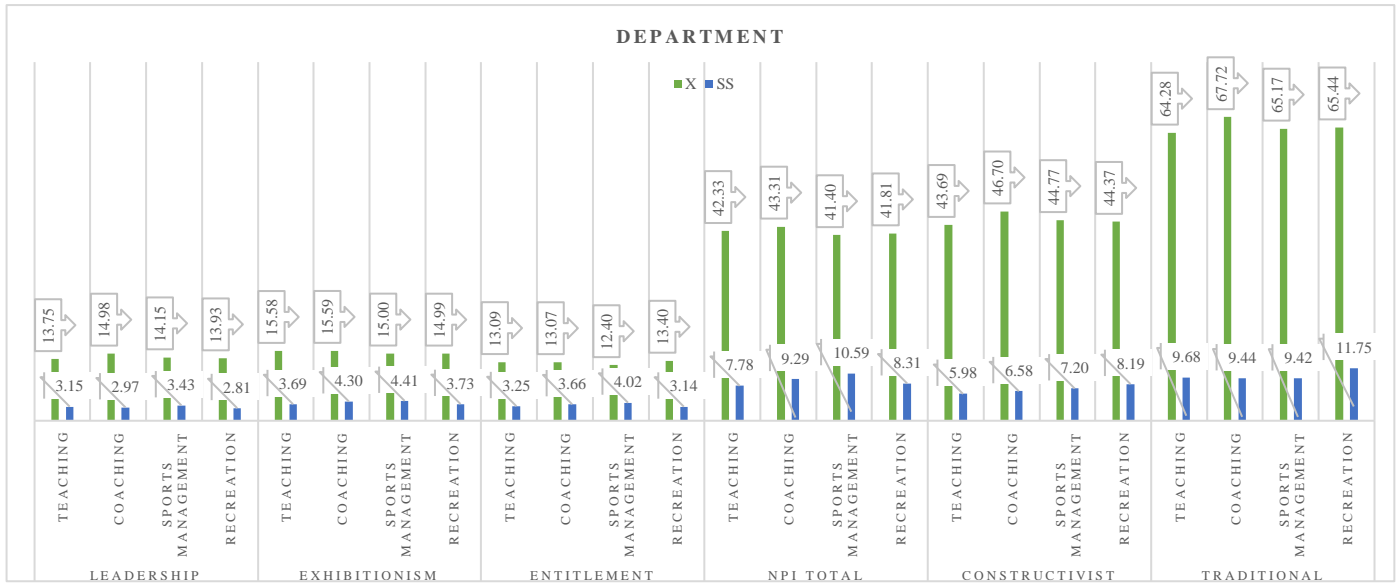


Figure 4. Comparison of Scale Scores by Department.

Table 6

Comparison of Participants' Scale Scores According to Department.

Department	Group	Sum of Squares	df	Mean Square	F	p	n <sup>2</sup>
Leadership	Between Groups	50.894	3	16.965	1.788	.150	
	Within Groups	2220.383	234	9.489			.022
	Total	2271.277	237				
Exhibitionism	Between Groups	20.940	3	6.980	.434	.729	
	Within Groups	3765.632	234	16.092			.006
	Total	3786.571	237				
Entitlement	Between Groups	29.909	3	9.970	.816	.486	
	Within Groups	2857.940	234	12.213			.010
	Total	2887.849	237				
NPI Total	Between Groups	111.528	3	37.176	.464	.708	
	Within Groups	18738.791	234	80.080			.006
	Total	18850.319	237				

<b>Constructivist Conception</b>	Between Groups	287.670	3	95.890	1.920	.127	.024
	Within Groups	11686.049	234	49.940			
	Total	11973.718	237				
<b>Traditional Conception</b>	Between Groups	365.669	3	121.890	1.169	.322	.015
	Within Groups	24407.978	234	104.308			
	Total	24773.647	237				

Table 6 shows the comparison of teacher candidates' scale scores by department. There is no difference between the leadership scores ( $F=1.788$ ;  $p>0.05$ ), exhibitionism scores ( $F=.434$ ;  $p>0.05$ ), entitlement scores ( $F=.816$ ;  $p>0.05$ ), NPI total scores ( $F=.464$ ;  $p>0.05$ ), constructivist conceptions scores ( $F=1.920$ ;  $p>0.05$ ) and traditional conceptions scores ( $F=1.169$ ;  $p>0.05$ ). This is an indication that all variables related to the levels of narcissism and the levels of teaching and learning concepts of the participants have similar values according to the department.

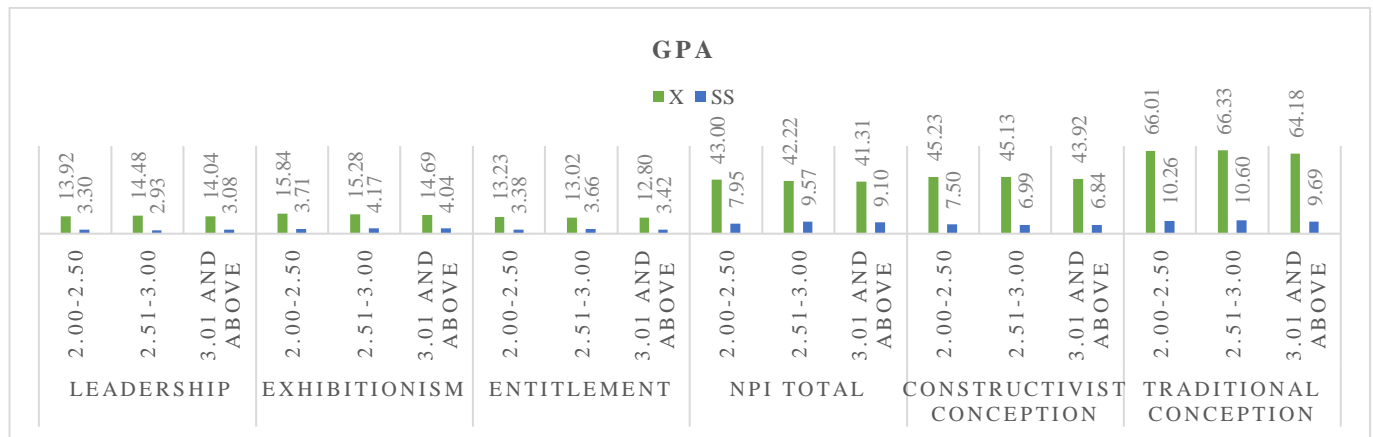


Figure 5. Comparison of Scale Scores by GPA.

Table 7

Comparison of Participants' Scale Scores According to GPA.

General Grade Average (GPA)	Group	Sum of Squares	df	Mean Square	F	p	n <sup>2</sup>
Leadership	Between Groups	14.416	2	7.208	.751	.473	.006
	Within Groups	2256.861	235	9.604			
	Total	2271.277	237				
Exhibitionism	Between Groups	49.203	2	24.601	1.547	.215	.013
	Within Groups	3737.369	235	15.904			
	Total	3786.571	237				
Entitlement	Between Groups	6.862	2	3.431	.280	.756	.002
	Within Groups	2880.987	235	12.260			
	Total	2887.849	237				
NPI Total	Between Groups	105.581	2	52.790	.662	.517	.006
	Within Groups	18744.739	235	79.765			
	Total	18850.320	237				

	Total	18850.319	237			
<b>Constructivist Conception</b>	Between Groups	80.033	2	40.017	.791	.455
	Within Groups	11893.685	235	50.611		
	Total	11973.718	237			
<b>Traditional Conception</b>	Between Groups	204.040	2	102.020	.976	.378
	Within Groups	24569.607	235	104.552		
	Total	24773.647	237			

Table 7 shows the comparison of teacher candidates' scale scores according to their GPA (general grade point average). There is no difference between the leadership scores GPA ( $F=.751$ ;  $p>0.05$ ), exhibitionism scores ( $F=1.547$ ;  $p>0.05$ ), entitlement scores ( $F=.280$   $p>0.05$ ), NPI total ( $F=.662$   $p>0.05$ ), constructivist conceptions scores ( $F=.791$   $p>0.05$ ) and traditional conceptions scores ( $F=.976$   $p>0.05$ ). This is an indication that all variables related to the levels of narcissism and the levels of teaching and learning concepts of the participants have similar values according to the GPA.

Table 8  
Comparison of Participants' Scale Scores According to Working Status.

	Group	n	$\bar{x}$	SD	t	df	p	Cohen's d	
<b>Working Status</b>	<b>Leadership</b>	Yes	90	14.80	3.01	2.482	236	.014	.332
		No	148	13.78	3.09				
	<b>Exhibitionism</b>	Yes	90	15.06	3.83	-.692	236	.490	-.092
		No	148	15.43	4.09				
	<b>Entitlement</b>	Yes	90	13.23	3.38	-.717	236	.474	.096
		No	148	12.90	3.55				
	<b>NPI Total</b>	Yes	90	42.81	8.46	-.822	236	.412	.110
		No	148	41.83	9.19				
	<b>Constructivist Conception</b>	Yes	90	44.97	6.68	.277	236	.782	.037
		No	148	44.70	7.37				
	<b>Traditional Conception</b>	Yes	90	65.08	9.16	-.600	236	.549	-.080
		No	148	65.90	10.83				

Table 8 shows the comparison of the scale scores of teacher candidates according to their working status. There is difference between the leadership scores of teacher candidates according to their working

status ( $t[236]=2.482$ ;  $p<0.05$ ). There is no difference between teacher candidates' exhibitionism scores ( $t[236]=-0.692$ ;  $p>0.05$ ), entitlement scores ( $t[236]=-0.717$ ;  $p>0.05$ ). NPI total ( $t[236]=-0.822$ ;  $p>0.05$ ), constructivist conceptions scores ( $t[236]=0.277$ ;  $p>0.05$ ) and traditional conceptions scores ( $t[236]=-0.600$ ;  $p>0.05$ ). This is an indication that all variables belonging to the narcissism levels of the participants (except leadership) and the teaching and learning concept levels have similar values according to the working status.

Table 9

Correlation Between Teacher Candidates' Narcissism Levels and Their Conceptions of Teaching and Learning.

	Mean	SD	Constructivist Conception	Traditional Conception
Leadership	14.17	3.096	.353**	.273**
Exhibitionism	15.29	3.997	.241**	.201**
Entitlement	13.03	3.491	.331**	.337**
NPI Total	42.20	8.918	.376**	.338**
Constructivist Conception	44.80	7.108	1	-
Traditional Conception	65,59	10,224	-	1

\*\* . Correlation is 0.01 level (2-tailed).

Table 9 shows the correlation analyses of pre-service teachers' levels of narcissism and their constructivist conceptions and traditional conceptions. The leadership ( $r=.353$ ,  $p<0.01$ ), exhibitionism ( $r=.241$ ,  $p<0.01$ ), entitlement ( $r=.331$ ,  $p<0.01$ ) and NPI total ( $r=.376$ ,  $p<0.01$ ) variables has a positive correlation with constructivist conception

The leadership ( $r=.273$ ,  $p<0.01$ ), exhibitionism ( $r=.201$ ,  $p<0.01$ ), traditional conception ( $r=.273$ ,  $p<0.01$ ), exhibitionism ( $r=.201$ ,  $p<0.01$ ), entitlement ( $r=.337$ ,  $p<0.01$ ) and NCI total ( $r=.338$ ,  $p<0.01$ ) variables has a positive correlation with traditional conception.

## Discussion and Conclusion

Discussion of the findings and results of the study examining the relationship between the narcissism levels of teacher candidates and their conceptions of teaching and learning are stated in this section. The distribution of the demographic characteristics of the participants was determined. The sub-dimensions of narcissism levels, namely leadership, exhibitionism, entitlement and NPI total scores, as well as constructivist conception and traditional conception scores, were compared according to various demographic characteristics of the participants (gender, age, grade, department, GPA and working status).

When the leadership variables of the participants were compared according to gender, there was no difference between them. There was no difference between the participants' leadership scores according to age. There was no difference between the leadership test data according to the grade variable. There was no difference between the leadership scores of teacher candidates according to the department variable. There was no difference between the groups when comparing the leadership variable according to GPA. Difference was found between the leadership scores of the participants according to their working status.

There was no difference between the participants' exhibitionism variable scores when compared according to gender. There was no difference between the participants' exhibitionism scores according to age. When comparing the exhibitionism variables by grade, there was no difference between them. There was no difference between the participants' exhibitionism scores according to department. There was no difference between the participants when comparing the exhibitionism variable with their GPA. When comparing the exhibitionism variable of the participants according to their working status, there was no difference between working and non-working people.

There was no difference between their when comparing the entitlement variable of teacher candidates according to gender. There was no difference between groups when comparing entitlement values by age. In our study, there is a negative relationship between the age of the participants and the average value of entitlement rights. There was no difference between the groups when comparing the entitlement variable by grade. When the entitlement variable scores were compared by department, there was no difference between departments. There was no difference when comparing the entitlement variable with the GPA. There was no difference in participants' entitlement scores based on employment status.

When participants' NPI total scores were compared by gender, there was no difference between their. Gezer (2017) found that while there was no relationship between the narcissism levels of university students and gender in terms of total narcissism, women showed more narcissistic tendencies than men in the sub-dimension of exploitation. Demirel et al. (2018) found no difference between the dimensions of the narcissism scale, namely self-sufficiency, superiority, authority and exploitation, and the gender of the students; They stated that men are more narcissistic than women in the exposure dimension (Demirel et al. 2018). The relevant literature contains similar results to our study. Tschanz al. (1998) found in their study that male participants were more narcissistic than females. There is no difference between groups when comparing NPI total scores by age. Carlson & Gjerde (2009) it was found that narcissism increased significantly especially in the 14-18 age range, while it was observed that it started to decline slightly in the 18-23 age range (Carlson & Gjerde, 2009). Akıncı (2015) study, it was found that narcissism tendencies differ significantly depending on the age variable; Adult group that appears

relative to young and middle adults this appears to have received high scores. The literature has different results from our study, this may be due to the difference in the sample group of the study. There was no difference when comparing participants' NPI total scores by grade. Akar (2014) found that narcissistic personality inventory scores decreased as grade levels increased (Akar, 2014). When comparing NPI total scores by department, there was no difference between departments. In similar studies on students studying in sports education departments of universities, it is seen that there are studies that do not find statistically significant differences in terms of department variables (Bayrak et al., 2015). There was no difference between the groups when comparing the participants' NPI total scores with their overall grade point average (GPA). When comparing the participants' NPI total scores according to their employment status, there was no difference between those who were employed and those who were not employed.

When teacher candidates' constructivist conception scores were compared by gender, there was no difference between men and women. There was no difference when constructivist conception scores were compared according to age. When comparing constructivist conception scores by grade, there was no difference between grade. When comparing constructivist conception scores by department, there was no difference between departments. There was no difference between the groups when comparing the constructivist conception scores according to the general grade point average. When comparing the participants' constructivist conception scores according to their working status, there was no difference between working individuals and non-working individuals.

There was no difference between their when comparing traditional conception scores by gender. There was no difference between the groups when comparing traditional conception scores according to age. When comparing traditional conception scores by grade, there was no difference between grade. There is a negative situation between class and traditional conception in groups. This may be due to the increased awareness of teacher candidates in later grades about teaching and the diversity of knowledge about teaching and teaching methods compared to those studying in earlier grades. When comparing traditional conception scores by department, there was no difference between departments. There was no difference between the groups when comparing traditional conception scores according to GPA. When comparing traditional conception scores according to employment status, there was no difference between employees and non-employees. In Oguz (2011) study, teacher candidates found that male students' scores were significantly higher in traditional conceptions results. However, no difference was found in constructivist conceptions scores according to gender.

When the relationship between the narcissism levels of the participants and the constructivist conception, which is one of the learning and teaching conceptions, is examined; A moderate positive relationship was detected between the leadership variable and constructivist conception. A low-level,

positive relationship was detected between the exhibitionism sub-dimension and constructivist conception in teacher candidates. A moderate positive relationship was detected between the entitlement variable and constructivist conception. A moderate positive relationship was detected between NPI total scores and constructivist conception. In this case, a significant relationship was determined between the narcissism levels of the teacher candidates and their constructivist conception.

When the relationship between the narcissism levels of the participants and the traditional conception, which is one of the conceptions of teaching and learning, is examined; A low-level significant relationship was detected between the leadership variable and traditional conception. A low-level positive relationship was detected between the exhibitionism variable and traditional conception. A moderate positive relationship was detected between entitlement rights and traditional conception. A moderate positive relationship was detected between NPI total scores and traditional conception. In this case, relationship was determined between the narcissism levels of the teacher candidates and their traditional conception scores. However, another situation detected in our study is that the relationship value between the constructivist conception and NPI total scores is higher than the relationship level between the traditional conception and NPI total scores. Since narcissistic individuals' self-perception of superiority may force them to gravitate towards the best and be associated only with the best (Atay, 2010), teachers who adopt the constructivist approach can also adopt this current understanding due to their desire to guide students and perform their duties at a high level.

There needs to be comprehensive teacher training to equip prospective teachers with knowledge, theory and practice. In addition, encouraging prospective teachers to develop and reshape their conceptions of learning and teaching is one of the basic components of teacher education (Chai, Tee, & Lee, 2009). Examining the teaching-learning conception of candidate teachers who are preparing for the teaching profession, which is one of the most important parts of education, and the relationship between narcissism by comparing these teaching-learning conceptions according to various demographic variables, determining the variables affecting the teaching-learning conceptions, and re-adapting the teaching-learning conceptions of teacher candidates, determining the teaching conceptions that can be applied in the next generation. It is thought to be important for development and quality of education.

In conclusion; In the data obtained from the scales, when all variables were compared according to gender, there was no difference between them. Differences were found between age groups. There was no difference between classes and departments. There was no difference between the groups according to GPA. When the variables are compared according to their working status, it is seen that there is a difference in leadership scores between the groups. There was no difference between exhibitionism, entitlement, NPI total, constructivist conception and traditional conception scores according to employment status. A positive relationship was detected between the narcissism scale sub-



dimensions of leadership, exhibitionism, entitlement, NPI total scores and constructivist conception. A positive relationship was detected between the narcissism scale sub-dimensions of leadership, exhibitionism, entitlement, NPI total scores and traditional conception. In this case, teacher candidates' narcissism levels are positively related to both their constructivist and traditional conceptions.

## **Suggestions**

The findings obtained from the research show that there is a relationship between the narcissism levels of teacher candidates and their conceptions of teaching and learning. Even if teacher candidates have high levels of narcissism, providing them with training on their conceptions of teaching and learning and ensuring that they reflect the characteristics of narcissism more positively in their conceptions of teaching and learning can contribute to creating a more productive educational environment in the future.

By giving teacher candidates the opportunity to teach with different teaching and learning approaches during the teaching practice (internship) period, they can be provided with the opportunity to conceptions both approaches and their effects on students, and to gain experience in managing their narcissistic aspects during the education process.

## **Ethics Committee Approval**

Ethics Committee: Erciyes University Social and Humanities Sciences Ethics Committee

Date of Ethics Approval: 27.06.2024

Approval Number: 290

## **Authors' Contribution Statement**

The first author conducted the processes related to the methodology and findings, the second author was responsible for the introduction, and the third author handled the discussion and conclusion sections.

## **Conflict of Interest Statement**

The author(s) declare no conflict of interest related to this research.

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