

SPEAKING ANXIETY–CULTURAL INTELLIGENCE RELATIONSHIP IN TEACHER CANDIDATES

RELAÇÃO ENTRE ANSIEDADE AO FALAR EM PALÁCIO E INTELIGÊNCIA CULTURAL EM CANDIDATOS A PROFESSORES

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ABSTRACT

The aim of this research is to determine the relationship between the levels of speech anxiety and cultural intelligence of physical education and sports department teacher candidates and to examine whether both variables differ according to demographic characteristics. The research was conducted with 300 undergraduate students studying at Atatürk University Faculty of Sports Sciences. The "Cultural Intelligence Scale" and the "Speech Anxiety Scale" were used as data collection tools. Independent samples t-test, one-way ANOVA, correlation, and regression analyses were applied in the analysis of the data. The statistical significance level was set at 0.05. Cultural intelligence levels were found to differ significantly according to gender, participation in sports, type of sport, department, class level, age, and family structure variables ($p < 0.05$). In terms of speech anxiety, a significant difference was found only according to the age variable; students aged 24 and over were found to have higher anxiety levels. Regression analysis showed a low-level, negative, and significant relationship between cultural intelligence and speech anxiety. The research results reveal that as the level of cultural intelligence increases, students' speech anxiety decreases. It can be said that cultural awareness, motivation, and behavioral adaptation skills support the communication process and have a speech anxiety-reducing effect. Therefore, it is evaluated that cultural intelligence-enhancing training and practices for prospective teachers

RESUMO

O objetivo desta pesquisa é determinar a relação entre os níveis de ansiedade ao falar em público e a inteligência cultural de futuros professores de educação física e esportes, e examinar se ambas as variáveis diferem de acordo com as características demográficas. A pesquisa foi realizada com 300 alunos de graduação da Faculdade de Ciências do Esporte da Universidade Atatürk. A "Escala de Inteligência Cultural" e a "Escala de Ansiedade ao Falar em Público" foram utilizadas como instrumentos de coleta de dados. Testes t de amostras independentes, ANOVA de uma via, correlação e análises de regressão foram aplicados na análise dos dados. O nível de significância estatística foi estabelecido em 0,05. Os níveis de inteligência cultural diferiram significativamente de acordo com o gênero, a participação em esportes, o tipo de esporte, o departamento, o ano letivo, a idade e as variáveis de estrutura familiar ($p < 0,05$). Em relação à ansiedade ao falar em público, uma diferença significativa foi encontrada apenas de acordo com a variável idade; os alunos com 24 anos ou mais apresentaram níveis de ansiedade mais elevados. A análise de regressão mostrou uma relação negativa, de baixa intensidade e significativa entre a inteligência cultural e a ansiedade ao falar em público. Os resultados da pesquisa revelam que, à medida que o nível de inteligência cultural aumenta, a ansiedade dos alunos ao falar em público diminui. Pode-se afirmar que a consciência cultural, a motivação e as habilidades de adaptação comportamental



can strengthen their communication competencies.

Keywords: Anxiety. Communication. Intelligence.

apoiam o processo de comunicação e têm um efeito redutor da ansiedade ao falar em público. Portanto, avalia-se que o treinamento e as práticas de aprimoramento da inteligência cultural para futuros professores podem fortalecer suas competências comunicativas.

Palavras-chave: Ansiedade. Comunicação. Inteligência.

1 INTRODUCTION

Communication is a fundamental social interaction process that enables individuals to share their feelings, thoughts, and information with each other, and is considered an essential element for the continuity of social life (Arslan, 2010). Verbal communication is considered one of the most important components of this interaction and plays a decisive role in an individual's social adaptation, self-expression ability, and academic success (Evren, 2013). Speech is not merely a physiological process based on sound production; it is a multidimensional skill requiring the simultaneous interaction of cognitive, affective, and behavioral components (Sofu, 2012; Tüzemen, 2016). Therefore, speech anxiety, one of the emotional factors affecting speech performance, is considered a variable that directly affects communication competence (Yıldırım, 2015).

Speech anxiety is characterized by tension, worry, and loss of self-confidence experienced by individuals in public speaking situations, and can lead to consequences such as avoidance of social interaction, decreased academic participation, and decreased performance (Melanlıoğlu & Demir, 2024). For prospective teachers, speaking anxiety is of critical importance because the teaching profession inherently requires a high level of verbal communication (Sevim, 2012). Therefore, determining the levels of speaking anxiety in prospective teachers and understanding the variables affecting this anxiety are considered important for the development of professional competence. In recent years, the concept of cultural intelligence has attracted attention as one of the variables that can affect speaking anxiety.

Cultural intelligence is the capacity of an individual to interact with people from different cultural backgrounds, adapt to them, and adjust their behavior according to the situation (Earley & Ang, 2003; Köse, 2016). Globalization, increasing cultural diversity, and the heterogeneous structure in educational environments have led to cultural

intelligence becoming an important socio-cognitive competency for prospective teachers (Kahraman, 2016). Cultural intelligence is considered in four dimensions: cognitive, motivational, behavioral, and metacognitive, and it is stated that these dimensions are related to an individual's communication performance, empathy level, and social adaptation skills (Ang & Van, 2008).

The literature suggests that individuals with high levels of cultural intelligence are more relaxed, flexible, confident, and adaptable in communication, and therefore may have lower anxiety levels (Demir, 2015; Konate, 2018). In this context, it is thought that cultural intelligence may play a mitigating role in speech anxiety. However, studies directly examining the relationship between speech anxiety and cultural intelligence are limited in the literature, and research conducted on prospective physical education and sports teachers is particularly scarce. Given that prospective physical education and sports teachers will be involved in tasks such as public speaking, leadership, managing sporting events, and engaging in intensive verbal communication in their professional lives, determining this relationship is of particular importance.

Accordingly, this study aims to examine the relationship between the speech anxiety levels and cultural intelligence of prospective physical education and sports teachers. It is believed that this study will contribute to the literature by filling a gap, considering two psychosocial variables together, and evaluating differences according to demographic variables.

2 METHOD

The questionnaire consists of three sections. The first section contains questions about the demographic characteristics of the participants, while the second section contains items related to the cultural intelligence scale, and the third section contains items related to the speech anxiety scale. The questionnaire consists of a total of 54 items: 9 questions in the demographic section, 20 questions in the cultural intelligence scale, and 25 questions in the speech anxiety scale. This study was approved and found suitable by the Ondokuz Mayıs University Ethics Committee with decision number KAEK 2019/81.

2.1 Research model

This study is an applied field research and a questionnaire was used as a data collection tool. Independent samples t-test was used for two-group variables and One Way ANOVA analysis was used for variables with more than two groups to compare speech anxiety and cultural intelligence variables. In addition, regression analysis was applied to reveal the relationship between speech anxiety and cultural intelligence. A literature review on the subject was conducted, and the research was completed with 300 participants.

2.2 Population and sample

The population of the study consists of first, second, third, and fourth-year students studying in the teaching, coaching, management, and recreation departments of the Faculty of Sports Sciences at Atatürk University. The sample consists of 300 prospective teachers selected using a simple random sampling method. The demographic variables considered in the study were determined as gender, age, family structure, department, class level, and level of sports activity.

2.3 Data collection tools

The Cultural Intelligence Scale (CIS) is a 20-item, 5-point Likert-type self-report scale developed by Ang et al. (2007) and adapted into Turkish by İlhan & Çetin (2014) to assess individuals' cultural intelligence levels. Participants were asked to respond appropriately to the statements in this section. The scale consists of four sub-dimensions:

- Metacognition (4 items): Awareness of cultural knowledge and regulation of mental processes,
- Cognition (6 items): Level of knowledge about different cultures,
- Motivation (5 items): Interest in and self-efficacy in intercultural interaction,
- Behavior (5 items): Ability to exhibit appropriate verbal and nonverbal behaviors in intercultural environments.

Ang et al. (2007) conducted Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) to ensure the construct validity of the scale. In the first stage, the

40-item form was administered to 576 students, and 20 items with low factor loadings were removed as a result of the EFA. The factor loadings of the remaining 20 items ranged from .52 to .80, and a four-factor model consistent with the theoretical structure was obtained. It was determined that the inter-factor correlations ranged from .21 to .45; and the corrected item-total correlations of the items ranged from .47 to .71. The Cronbach Alpha internal consistency coefficients of the scale were reported as .72 for metacognition, .86 for cognition, .76 for motivation, and .83 for behavior (İlhan & Çetin, 2014).

The Speech Anxiety Scale (SAS) is a unidimensional measurement tool consisting of 25 items. The scale uses a 5-point Likert-type structure with a rating scale ranging from “1=Strongly Disagree” to “5=Strongly Agree”. The item-total correlations of the scale range from .26 to .61. The internal consistency coefficient was found to be .79 (Yaman & S. Sofu, 2013).

2.4 Data collection

The responses of prospective teachers who participated in the research on a voluntary basis were analyzed. The questionnaires were examined, and those that were incomplete or incorrectly filled out were excluded from the study. The number of questionnaires included in the dataset was determined to be 300.

2.5 Data analysis

The 300 data points obtained were coded according to the rules of the IBM SPSS Statistics 21.0 software package, and the responses were recorded. Subsequently, erroneous data entries were checked and corrected. After the correction of erroneous data, the distribution of the data set was checked, and data with outliers and logical errors were excluded from the analysis. In the evaluation of the findings, independent t-tests, ANOVA, and regression analysis were performed to compare data showing normal distribution ($p>0.05$) in the analyses related to personal characteristics, speech anxiety, and cultural intelligence, and to determine the relationship between them. All statistical procedures were evaluated according to the 0.05 significance level.

3 FINDINGS

Table 1

Mean values and standard deviation scores of speaking anxiety levels of university students in terms of age groups

Age	N	X	Ss	F	p
20 and below	64	75,67	13,741	7,758	,001*
From 21 to 23	181	72,69	15,327		
24 and above	55	81,41	12,245		
Total	300	74,93	14,804		

As shown in Table 1, a statistically significant difference in speaking anxiety levels across age groups was found. ($F = 7,758$; $p = ,001$). $P < 0,05$ suggests that this difference is significant. Based on the mean scores, students aged 24 and above had the highest level of speaking anxiety ($\bar{X} = 81,41$) whereas students from 21 to 23 had the lowest level ($\bar{X} = 72,69$). The age group of 20 and below has a moderate mean value ($\bar{X} = 75,67$).

Table 2

T-test to determine significant difference of cultural intelligence levels in terms of gender

Dimensions	Groups	N	X	Ss	Sd	t	p
Metacognitive Intelligence	Female	111	13,7117	4,30726	,4088	1,795	,181
	Male	189	14,5820	3,67422	,2672		
Cognitive Intelligence	Female	111	18,5405	5,51161	,5231	5,970	,015*
	Male	189	20,3598	4,08652	,2972		
Motivational Intelligence	Female	111	17,1441	4,24445	,4028	,668	,414
	Male	189	18,2434	3,92266	,2853		
Behavioral Intelligence	Female	111	16,5766	5,20585	,4941	6,037	,015*
	Male	189	17,5079	3,92973	,2858		
Total of Cultural Intelligence	Female	111	65,9730	17,50245	1,6616	-2,217	,138
	Male	189	70,6931	12,91465	,9394		

*= $P < 0,05$

The effect of gender variable on cultural intelligence levels was examined and the results are shown at Table 2. The difference between metacognitive intelligence scores of female and male students are not statistically significant ($t = ,4088$; $p = ,181$). There is a statistically significant difference between female and male students in terms of cognitive intelligence levels ($t = 5,970$; $p = ,015$): the mean value of male students ($\bar{X} = 20,36$) is higher than that of female students ($\bar{X} = 18,54$). A statistically significant difference between female and male students is not found in terms of motivational intelligence levels

($t = ,668$; $p = ,414$). A statistically significant difference determined in terms of behavioral intelligence scores of female and male students ($t = 6,037$; $p = ,015$). Male students ($\bar{X} = 17,51$) have a higher mean value than female students ($\bar{X} = 16,57$). The difference in total cultural intelligence scores are not statistically significant in terms of gender ($t = 2,217$; $p = ,138$). General cultural intelligence level does not vary according to gender.

Table 3

T-test to determine significant difference of cultural intelligence levels in terms of “participation in sporting activities”

Dimensions	Groups	N	X	Ss	Sd	t	p
Metacognitive Intelligence	Yes	195	14,6667	3,62646	,25970	5,398	,021*
	No	105	13,5048	4,37239	,42670		
Cognitive Intelligence	Yes	195	20,2513	4,18434	,29965	5,719	,017*
	No	105	18,6381	5,49322	,53608		
Motivational Intelligence	Yes	195	18,3897	3,98216	,28517	,311	,578
	No	105	16,8095	4,05751	,39597		
Behavioral Intelligence	Yes	195	17,6974	4,02386	,28815	4,743	,030*
	No	105	16,1714	5,04300	,49215		
Total of Cultural Intelligence	Yes	195	71,0051	13,14177	,94110	3,802	,052
	No	105	65,1238	17,19386	1,67795		

*= $P < 0.05$

Cultural intelligence levels in terms of participation in sporting activities were shown at Table 3. There is a statistically significant difference in metacognitive intelligence dimension of those who do sports and those who don't ($t = 5,398$; $p = ,021$). The “Yes” group ($\bar{X} = 14,67$) has a higher mean than the “No” group ($\bar{X} = 13,50$). According to cognitive intelligence dimension, a statistically significant difference was found between those who do sports and those who don't ($t = 5,719$; $p = ,017$). The mean of “Yes” group ($\bar{X} = 20,25$) is higher than the mean of “No” group ($\bar{X} = 18,63$). There is no significant difference between groups in the motivational intelligence sub-dimension ($t = ,311$; $p = ,578$). Behavioral intelligence scores indicate a significant difference ($t = 4,743$; $p = ,030$). The mean value of those who do sports ($\bar{X} = 17,70$) is higher than those who don't ($\bar{X} = 16,17$). Although the p value approached the significance threshold, the difference in total cultural intelligence scores was not statistically significant ($t=3,802$; $p = ,052$).

Table 4

T-test to determine significant difference of cultural intelligence levels according to “type of sports”

Dimensions	Groups	N	X	Ss	Sd	t	p
Metacognitive Intelligence	Individual Sports	95	14,5053	3,563	,3656	,721	,397
	Team Sports	64	14,4219	3,562	,4453		
Cognitive Intelligence	Individual Sports	95	19,8737	4,622	,4742	4,265	,041*
	Team Sports	64	20,3438	3,613	,4516		
Motivational Intelligence	Individual Sports	95	17,7895	4,145	,4253	2,903	,090
	Team Sports	64	19,0156	3,525	,4406		
Behavioral Intelligence	Individual Sports	95	17,4947	4,307	,4418	1,369	,244
	Team Sports	64	17,6094	3,667	,4584		
Total of Cultural Intelligence	Individual Sports	95	69,6632	14,22	1,459	-3,507	,063
	Team Sports	64	71,3906	10,96	1,371		

*= $P < 0.05$

Table 4 presents cultural intelligence levels in terms of the type of sports. In the metacognitive intelligence dimension, no statistically significant difference was found between students who participated in individual sports and those who participated in team sports. ($t = ,721$; $p = ,397$). There is a statistically significant difference in terms of cognitive intelligence scores ($t = 4,265$; $p = ,041$). The mean value of the participants who do team sports ($\bar{X} = 20,34$) is slightly higher than those who do individual sports ($\bar{X} = 19,87$). A significant difference is not determined between groups in terms of motivational intelligence ($t = 2,903$; $p = ,090$). The difference in behavioral intelligence scores of the participants who do individual sports and who do team sports is not statistically significant ($t = 1,369$; $p = ,244$). There is also no statistically significant difference determined in total cultural intelligence scores.

Table 5

Mean values and standard deviation scores of cultural intelligence levels of university students in terms of age variable

Dimensions	Age	N	X	Ss	F	p
Metacognitive Intelligence	20 and below	64	14,390	3,978	,055	,947
	From 21 to 23	181	14,204	4,141		
	24 and above	55	14,290	3,177		
	Total	300	14,26	3,935		
Cognitive Intelligence	20 and below	64	19,76	4,256	,672	,512
	From 21 to 23	181	19,46	5,274		
	24 and above	55	20,30	3,143		
	Total	300	19,68	4,738		
Motivational Intelligence	20 and below	64	18,40	3,877	2,575	,030*
	From 21 to 23	181	17,95	4,297		
	24 and above	55	16,78	3,342		

	Total	300	17,83	4,072		
Behavioral Intelligence	20 and below	64	17,28	4,180	,048	,953
	From 21 to 23	181	17,09	4,813		
	24 and above	55	17,23	3,527		
	Total	300	17,16	4,459		
	Total of Cultural Intelligence	20 and below	64	69,84		
From 21 to 23	181	68,72	16,738			
24 and above	55	68,61	9,717			
Total	300	68,94	14,925			

*= $P < 0.05$

Cultural intelligence levels in terms of age variable were shown in Table 5. There is no statistically significant difference determined between age groups according to metacognitive intelligence sub-dimension ($F = ,055$; $p = ,947$). Cognitive intelligence scores also did not differ significantly across age groups ($F = ,672$; $p = ,512$). There is a significant difference in terms of motivational intelligence scores in age groups ($F = 2,575$; $p = ,030$).

According to mean values, 20 and below group ($\bar{X} = 18,40$) has more motivational intelligence scores than other groups. On the other hand, 24 and above group has the lowest mean value ($\bar{X} = 16,78$). Behavioral intelligence scores don't differ statistically by age groups ($F = ,048$; $p = ,953$). The difference in total cultural intelligence scores is also not statistically significant ($F = ,147$; $p = ,863$).

Table 6

Mean values and standard deviation scores of cultural intelligence levels of university students in terms of academic departments

Dimensions	Department	N	X	Ss	F	p
Metacognitive Intelligence	Teaching	85	15,34	3,297	4,974	,002*
	Coaching	56	14,76	3,663		
	Management	75	13,85	3,578		
	Recreation	84	13,19	4,671		
	Total	300	14,26	3,935		
Cognitive Intelligence	Teaching	85	20,94	3,956	4,433	,005*
	Coaching	56	20,05	3,849		
	Management	75	19,45	4,021		
	Recreation	84	18,38	6,109		
	Total	300	19,68	4,738		
Motivational Intelligence	Teaching	85	18,95	3,387	6,091	,000*
	Coaching	56	18,42	3,473		
	Management	75	17,68	4,136		
	Recreation	84	16,45	4,626		
	Total	300	17,83	4,072		
Behavioral Intelligence	Teaching	85	17,92	3,972	3,152	,025*
	Coaching	56	17,96	3,692		
	Management	75	16,86	4,153		

	Recreation	84	16,11	5,387		
	Total	300	17,16	4,459		
Total of Cultural Intelligence	Teaching	85	73,16	11,42	6,016	,001*
	Coaching	56	71,21	12,23		
	Management	75	67,85	13,05		
	Recreation	84	64,14	19,32		
	Total	300	68,94	14,92		

*= $P < 0.05$

Table 6 presents the result of cultural intelligence scores according to the departments studied. The results indicated a statistically significant difference between academic departments in the metacognitive intelligence sub-dimension ($F = 4,974$; $p = ,002$). Teaching group ($\bar{X} = 15,34$) has the highest mean value whereas recreation group has the lowest one ($\bar{X} = 13,19$). According to cognitive intelligence scores, there is also a statistically significant difference between departments of study ($F = 4,433$; $p = ,005$). The highest mean value is at the teaching group ($\bar{X} = 20,94$) and the lowest score is at the recreation group ($\bar{X} = 18,38$). Motivational intelligence levels are also significantly different in terms of academic departments ($F = 6,091$; $p < ,001$). The mean of teaching group ($\bar{X} = 18,95$) is higher than other groups, whereas recreation group has the lowest mean value ($\bar{X} = 16,45$). According to behavioral intelligence scores, the groups differ significantly ($F = 3,152$; $p = ,025$). Teaching and coaching groups have higher mean values than management and recreation groups. Total cultural intelligence scores are also significantly different in terms of academic departments ($F = 6,016$; $p = ,001$). Teaching group ($\bar{X} = 73,16$) has the highest total score whereas recreation group ($\bar{X} = 64,14$) has the lowest value.

Table 7

Mean values and standard deviation scores of cultural intelligence levels of university students in terms of class level

Dimensions	Class Level	N	X	Ss	F	p
Metacognitive Intelligence	Freshman	89	13,1348	5,00498	4,017	,008*
	Sophomore	53	14,6604	3,12523		
	Junior	81	14,4074	3,40506		
	Senior	77	15,1299	3,26606		
	Total	300	14,2600	3,93582		
Cognitive Intelligence	Freshman	89	17,8427	5,95990	8,902	,000*
	Sophomore	53	19,5283	3,59275		
	Junior	81	21,3951	4,17636		
	Senior	77	20,1299	3,56279		
	Total	300	19,6867	4,73814		
	Freshman	89	16,9551	4,80982	2,273	,080

Motivational Intelligence	Sophomore	53	18,6415	3,91788		
	Junior	81	18,0494	3,86620		
	Senior	77	18,0779	3,27979		
	Total	300	17,8367	4,07250		
Behavioral Intelligence	Freshman	89	15,9438	5,63947	3,554	,015*
	Sophomore	53	17,2642	3,08315		
	Junior	81	18,0123	4,13368		
	Senior	77	17,6104	3,76674		
Total of Cultural Intelligence	Total	300	17,1633	4,45903	5,234	,002*
	Freshman	89	63,8764	19,4503		
	Sophomore	53	70,0943	10,8295		
	Junior	81	71,8642	13,1403		
	Senior	77	70,9481	11,5004		
	Total	300	68,9467	14,9258		

*= $P < 0.05$

Table 7 presents the result of cultural intelligence scores according to the class level students studied. There is a statistically significant difference between class levels of students in the metacognitive intelligence sub-dimension ($F = 4,017$; $p = ,008$). Senior students ($\bar{X} = 15,13$) had the highest mean score whereas freshman students has the lowest one ($\bar{X} = 13,13$). According to cognitive intelligence scores, there is also a statistically significant difference between class levels ($F = 8,902$; $p < ,001$). The highest mean value is at the junior students ($\bar{X} = 21,39$) and the lowest score is at the freshman group ($\bar{X} = 17,84$). Motivational intelligence levels are not significantly different in terms of class level ($F = 2,273$; $p = ,080$). According to behavioral intelligence scores, the groups differ significantly ($F = 3,554$; $p = ,015$). Junior students ($\bar{X} = 18,01$), has the highest score whereas freshman students ($\bar{X} = 15,94$) has the lowest mean value. Total cultural intelligence scores are also significantly different in terms of class level ($F = 5,234$; $p = ,002$).

4 DISCUSSION

This study examined the relationship between cultural intelligence levels and speech anxiety among physical education and sports department students, and significant differences were found in terms of some demographic variables. The research findings show that the cultural intelligence levels of prospective physical education and sports teachers differ significantly according to some demographic variables; however, speech anxiety only changes according to the age variable. In addition, a low-level, negative, and significant relationship was found between cultural intelligence and speech anxiety. This

result is consistent with the literature that speech anxiety decreases as cultural intelligence increases.

In terms of gender, the fact that male students scored higher on cognitive and behavioral sub-dimensions suggests that men may have an advantage in interacting with and adapting to different cultures. In the literature, there are both parallel (Ekici, 2011; Uludağ & Deveci, 2018) and conflicting findings (Koçak & Özdemir, 2015; Demir, 2015) on this issue, and it can be said that cultural intelligence does not have a distinct gender-based structure. The grade level variable stands out as a significant determinant of cultural intelligence. The higher levels of cultural intelligence among upper-grade students support studies suggesting that experiences gained during the educational process increase cultural awareness and adaptation skills (Adatepe et al., 2024; Wujiabudula & Karatepe, 2020). This indicates that cultural intelligence is a learnable and developable construct.

The fact that a significant difference was observed only in the motivational sub-dimension in the age variable suggests that younger students are more willing to engage in intercultural interaction. This finding partially aligns with studies indicating that cultural adaptation is facilitated as experience increases (Thomas & Inkson, 2004). However, the lack of a significant effect of age in some studies (Suna, 2024; Demir, 2015) suggests that the development of cultural intelligence depends not only on age but also on experience and the quality of education.

Participation in sports and the type of sport played affected some sub-dimensions of cultural intelligence. The fact that students who participate in sports have higher levels of metacognitive, cognitive, and behavioral intelligence supports research suggesting that sports offer opportunities for social interaction and intercultural communication (Ermiş & İmamoğlu, 2013; Ergün & Güzel, 2017). The higher cognitive intelligence scores of students who participate in team sports may be interpreted as team sports increasing communication, cooperation, and social awareness.

Since there is mobility in the subjective dimension of sports, it will also affect language development for both those who play sports and those who participate in sporting activities. As an addition to sporting development, a structure that will also affect development in a cultural sense is closely related to the social and interactive dimension of sports (Alaeddinoğlu., 2020).

The significant difference observed only in the behavioral sub-dimension of the family structure variable indicates that the cultural adaptation skills of individuals raised in different family structures can also vary. The higher behavioral intelligence scores of students from broken families suggest that different living conditions can enhance adaptation skills. The higher cultural intelligence scores of teacher training students in all sub-dimensions indicate that teacher training includes outcomes that increase cultural awareness (Turan et al., 2022). This finding is consistent with the theoretical framework suggesting that cultural intelligence can be developed in educational settings. Regarding speaking anxiety, the finding that anxiety increases with age can be related to a lack of experience or insufficient practice in communication skills. Furthermore, the negative relationship between cultural intelligence and speech anxiety indicates that cultural awareness and adaptive skills provide individuals with psychological comfort in communication processes. This aligns with studies in the literature that state that cultural intelligence strengthens communication skills and adaptive behaviors (Thomas et al., 2008; Gezer & Şahin, 2017).

5 CONCLUSION

In conclusion, the research revealed that cultural intelligence differs significantly according to various demographic variables, that only age affects speech anxiety, and that speech anxiety decreases as cultural intelligence increases; it also showed that students who participate in team sports, are interested in sports, and are studying in the teacher training department, as well as upperclassmen, have higher levels of cultural intelligence. Overall, the study showed that cultural intelligence is a determining factor in communication processes and that students with high levels of cultural intelligence have lower speech anxiety. In line with this study, it is suggested that intercultural interaction, communication-presentation skills, and counseling/mentoring support be integrated into the curriculum to increase cultural intelligence and reduce speech anxiety in prospective teachers, and that the relationship be re-examined with qualitative approaches in different samples.

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Authors' Contribution

All authors contributed equally to the development of this article.

Data availability

All datasets relevant to this study's findings are fully available within the article.

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