

The effect of peer-assessment training on gifted fifth grade students' English writing skills

Akran değerlendirmesi eğitiminin özel yetenekli beşinci sınıf öğrencilerinin İngilizce yazma becerilerine etkisi

Suzan UYSAL YILDIRIM^{1*}  , Kağan BÜYÜKKARCI² 

¹ Ministry of National Education, Türkiye

² Süleyman Demirel University, Isparta, Türkiye

This study is based on the master's thesis of the first author completed under the supervision of the second author.

Abstract: Peer assessment has become widespread in recent years with the rise of the process approach. However, there is no study in the literature that has used this method with gifted students in English writing. This study aimed to investigate the effects of peer assessment training on gifted students' English writing. Qualitative and quantitative data were obtained from 30 gifted 5th grade students. The data from the English writing scored on a rubric and the Second Language Writing Anxiety Inventory used as a pre-post-test were analysed using SPSS 25. Semi-structured Interview Form was used to obtain students' views. According to the quantitative results, the study made a statistically significant difference in increasing English writing skills and decreasing foreign language writing anxiety. Qualitative findings revealed that the study was useful, informative and enjoyable. The study helped the participants to feel more comfortable because they realized that their peers could also make similar mistakes when writing in English. Besides, the students reported that they were worried about fair evaluation and grading by their peers. In conclusion, peer assessment has the potential to increase students' skills, self-confidence and awareness in English writing.

Keywords: peer assessment, gifted students, English writing skills, writing anxiety

Özet: Akran değerlendirmesi son yıllarda süreç yaklaşımının yükselişiyle yaygınlaşmıştır. Ancak, alanyazında İngilizce yazma konusunda özel yetenekli öğrencilerle bu yöntemi uygulamış bir çalışma bulunamamıştır. Bu çalışmanın amacı, akran değerlendirmesi eğitiminin özel yetenekli öğrencilerin İngilizce yazma becerilerine etkisini araştırmaktır. 30 özel yetenekli 5. sınıf öğrencisi ile yapılan 12 haftalık çalışmada nitel ve nicel veriler elde edilmiştir. Ön-son test olarak kullanılan İkinci Dilde Yazma Kaygısı Envanterine ve dereceli puanlama anahtarına dayanarak elde edilen veriler analiz edilmiştir. Öğrencilerin görüşlerini almak için yarı yapılandırılmış görüşme formu kullanılmıştır. Sonuçlar, çalışmanın İngilizce yazma becerilerinin artmasında ve yabancı dilde yazma kaygısının azalmasında istatistiksel olarak anlamlı bir fark yarattığını, yararlı, öğretici ve eğlenceli olduğunu ortaya koymuştur. Çalışma katılımcıların kendilerini daha rahat hissetmelerine yardımcı olmuştur, çünkü akranlarının da İngilizce yazarken benzer hataları yapabileceklerini görmüşlerdir. Diğer taraftan, öğrenciler akranları tarafından adil değerlendirildikleri konusunda ise kaygı duyduklarını belirtmiştir. Sonuç olarak, akran değerlendirmesi uygulamasının öğrencilerin İngilizce yazma konusunda becerilerini, özgüvenlerini ve farkındalıklarını artırma potansiyeli vardır.

Anahtar Sözcükler: akran değerlendirmesi, özel yetenekli öğrenciler, İngilizce yazma becerileri, yazma kaygısı

1. Introduction

Assessment in English language teaching is an important part of teaching and learning to gather information about the quality of teaching. Recently, a shift from assessment of learning to assessment for learning has been encouraged (Mok, 2011). Peer assessment (PA) can be particularly useful in developing English skills as it has great potential and is becoming an important tool in various subject areas (Falchikov & Goldfinch, 2000). This study has furthered previous studies given that they have not adequately researched gifted participants' writing skills improvement, writing anxieties decrease and perceptions regards to PA in English. Unlike the studies in the literature this study relied not only on

students' overall scores but also considered changes in their writing anxiety and perceptions towards writing in English. The study offers significant insights into how writing activities could be implemented more effectively in favour of teachers and students. The results have the potential to support English curriculum in gifted education and take educators' attention to create improved writing atmosphere.

2. Literature Review

2.1. The Education of Gifted Students

There are educational initiatives and an increasing public awareness favourable to the education of gifted students in most of the developed and developing countries. Different applications of the educational processes can be seen due to the different perspectives of the societies in means of unique educational, social, philosophical and political approaches to giftedness. Gifted education has gathered pace since the 1960s, especially in the USA and Canada, in the countries of Europe as well as in Southeast Asia, South Africa, and Australia (Akarsu, 2004). The aftermath of the launching of Sputnik in 1957, the Russian satellite, and the other countries' search for equity and excellence as they were in need of competing around the globe, triggered great excitement about today's high interest in educating gifted children and consequently it has ignited the widespread concern and rivalry among powerful countries (Rimm, Siege & Davis, 2018).

Public schools do not offer much for gifted students in the current Turkish national educational system. The curriculum has been developed and adapted in accordance with the needs and learning capacity of normal students (Bakioğlu & Levent, 2013). So, special education is offered to these gifted students in Science and Art Centres (SAC) run by the Turkish Ministry of National Education. SACs were established in 1995 as an official support education centre. They are special education centres founded to offer extra education to these special students studying at primary and secondary schools in the field of general mental ability, music and art (Sak, Ayas, Bal-Sezerel, Öpengan, Özdemir & Demirel-Gürbüz, 2015).

2.2. Gifted English Language Learners

Gifted students show differences from their non-gifted peers in terms of needs and characteristics (Bruning & Horn, 2000). According to Davis (2019), the most distinctive feature of gifted children is that they are better at language skills compared to their peers. However, it is also possible that some gifted students do not have the ability to excel in foreign languages. One of the important points in teaching English as a foreign language to gifted students is that; it is necessary to provide learning environments that support creative and critical ideas and include challenging and complex tasks (Watters & Diezmann, 2003). However, English language learners are still underrepresented in gifted programmes and teachers have difficulty in ensuring those students with adequate educational experiences. To sum up, the students identified as gifted and those talented in languages will need extra learning experiences far more than simple vocabulary learning (Franklin & Friedl, 1973). When considered from this point of, language teaching programs should be differentiated and individualized to improve giftedness.

2.3. Peer Assessment

According to Topping (2009), PA is the organisation of evaluating and determining the level, value or quality of the product or work of other peers. PA is highly efficient in fostering students' critical thinking, communicative and collaborative skills (Nilson, 2003). PA can be summative or formative in different forms, places and time. The products may be written work, oral presentations, portfolios or other types of proficiency behaviour. It can be conducted face-

to-face or in written forms. According to Rollinson (2005), reading the work of peers enables students to be more critical of their own writing, which in turn helps them to develop critical thinking. Identifying their peers' mistakes and comparing themselves to them can make them become more critical of their writing. In general, PA seems to lead positive feedback from students, although some students have concerns and anxieties, as indicated by mixed findings in diverse content areas (Cheng & Warren, 1997; Kwok, 2008).

2.4. Peer Assessment in Writing

Writing is an essential and complex cognitive skill in language learning. According to Nunan (1991), the writer is expected to integrate grammar, vocabulary, content, spelling, etc. into cohesive and coherent text. PA ensures students to improve critical thinking skills as reading peers' writings make them be more critical of their own writing (Rollinson, 2005). Identifying peers' mistakes can encourage students to be more critical in their writing and to take responsibility for assessing and giving feedback on peers' work. It increases their autonomy and improves their performance. Thus, students' critical thinking, independent learning and self-responsibility skills are aimed to develop (Falchikov & Goldfinch, 2000).

Kurt and Atay (2007) aimed to investigate the effects of PA on the writing anxiety of 85 Turkish prospective teachers of English by means of the SLWAI (Cheng, 2004). According to the results, the peer feedback group had lower writing anxiety than the teacher feedback group. Doğar-Kayadelen (2018) investigated the effects of peer editing in writing lessons on young learners in regards to motivation and academic development. Koca (2019) aimed to investigate peer teaching and its impact on middle school EFL learners' writing motivation. Both studies showed that students reflected the positive effects of peer teaching in their writing. They also stated that this practice improved their self-assessment skills, linguistic competence and ability to give feedback. Berg (1999) discusses the training process before PA in his study with an experimental and control group. Based on the results, experimental group makes better revisions. The positive impact of PA and teacher assessment subsequently is studied by Birjandi and Tamjid (2012) to compare different types of assessment from the perspective of ESL students. While PA and teacher assessment were used together in the experimental group, only PA was used in the control group. Following the study, a post test was administered to groups and the results showed that experimental group was more successful. Teacher feedback is regarded as primary authority; but according to the researchers, it is not likely to establish autonomy of the learner without peer and self-assessment. Also, it was observed that there are studies on PA in the literature related to speaking skills (Hajar, 2017; Musfirah, 2019; Peng, 2010; Prastika, 2020; Saito, 2008). Also, it was inferred that the studies in the literature related to English teaching to gifted students in the world are quite limited (Acar, 2022; Beşkardeş-Günay, 2007; Okan & İşpınar, 2009; Tokcan, 2022).

2.5. Significance of the Study

This study aims to find out the effect of PA training on the fifth-grade gifted students' English writing performance. So, it addresses the research questions below:

1. Do the participants' English writing skills improve after the PA training?
2. Does PA training have an impact on reducing English writing anxiety of the participants?
3. What are the perceptions of the participants about PA training?

3. Methodology

A mixed research method was used to benefit the strengths of both methods. The study employed a quasi-experimental design utilising a single-group with pre-and-post-test assessments to examine students' writings and SLWAI "The Second Language Writing Anxiety Inventory" in the quantitative part. Single-blind PA method was applied to reduce the impact of personal bias and ensure the quality and reliability of the assessment process. Semi-structured interviews, participants' comments on peers' writings and researchers' field notes were employed to reveal individual perceptions in the qualitative part. Besides, the researchers took notes of the oral interview and compared the participants' perceptions of PA in the oral feedback with the interviews with participants randomly selected by the researchers to confirm the qualitative data (Trochim, 2000).

3.1. Participants and Setting

This study was conducted with 30 gifted fifth grade students from Dumlupınar SAC in Afyonkarahisar, Türkiye in the second semester of the 2021-2022 academic year. They were identified as gifted students in accordance with the standards for the identification of gifted students set by the Turkish Ministry of National Education (MoNE). They had 4 hours of English class focusing mainly on developing their communicative abilities. Ages of the participants were between 10 and 11.

3.2. Data Collection Tools

3.2.1. Scores of pre and post written tasks. The first data collection tool was the scores of papers that the students wrote in English on assigned writing tasks aligned with lesson objectives and themes. The writings were assessed by the students with the rubric provided by the researchers. This rubric was also used by the researchers to assess the participants' writings. A new rubric was created by the researchers for this study by examining the rubrics developed by Savaş (2013) and Demirel (2009). Participants were instructed to read the writings under consideration of five strengths and make a comment under the scoring. The score interval was from 5 to 25. It was in English on one side of the paper and Turkish on the other side to make them feel comfortable to comprehend the aspects. The results of the first and the last week were analysed with paired samples t-test. Rubric scoring was supported by the results gathered from the comments following the scoring the writings. These comments were gathered with a question "Do you have any general comments about the writing?" and assessed in the qualitative part of this study to gain a more profound understanding of the students' perspectives on the advantages and challenges encountered during the training.

3.2.2. SLWAI. The second data collection tool developed by Cheng (2004) was conducted at the beginning and end of the study to collect data about the difference of participants' level of anxiety in writing in English. Students indicated their opinions on a Five-point Likert scale. Cronbach's coefficient was calculated to determine the internal consistency of the whole items of SLWAI, showing a reliability estimate of .91 for the first and .90 for the second administration of the scale. According to the two administrations of the original version of SLWAI, the internal consistency of the items, Cronbach's coefficient α , was calculated .91.

3.2.3. Semi-structured interview questions. The third data collection tool was the semi structured interview questions prepared by the researchers to elicit in-depth information about participants' perceptions towards PA activities. They had to examine the interview questions developed by Demirel (2009), Demir (2019) and Kızıl (2019) for university students. Since the participants were fifth grade school students, the expressions in the interview questions were simplified.

3.2.4. Field notes. The researchers kept field notes. They used them as supporting evidence for the study (Galvan & Pyrczak, 2016). The researchers observed the participants in the classroom during the whole process of the training. They aimed to see favourable and even adverse effects of PA method on academic success, self-confidence, motivation and attitude towards writing in English.

3.3. Data Collection Procedure

The duration of training and data collection lasted for 12 weeks. The participants were assigned 10 writing tasks in total. Their first written tasks assessed by the researchers were determined as pre-tests and the 10th ones were determined as the post-tests. All students were required to individually compose a minimum 100-word English text on the same topic at the same time in the classroom. The participants were required to include various grammar, vocabulary and necessary organizational elements defined in the rubric. They used their printed or online dictionary. The papers were firstly assessed by their peers using a single-blind method and then by their teachers according to the rubric.

In the first week, the rubric was presented and discussed with the students. Also, participants took pre-SLWAI. An ice-breaker game named error-hunting was played with the participants to create a productive and comfortable atmosphere. The participants practiced finding the errors and editing them as a whole class. Later, they discussed how to create an outline and write a draft of a short text.

In the second week, participants wrote their first tasks and assessed their peers' writings. Immediately after their assessment, the researchers assessed the writings, too. From the third week to the eleventh weeks, participants wrote their tasks and assessed their peers' writings individually based on the rubric. At the end of training each time, the researchers also made assessments as a post-editing session and gave students feedback. Finally, pre- SLWAI was conducted. Besides, participants were asked to take part in a semi-structured interview to obtain more data about their perceptions towards the training. The interviews were conducted face to face with fourteen students. The edited interview texts were subjected to thematic content analysis as Creswell (2007) suggests.

3.4. Data Analysis

Quantitative data underwent analysis using the SPSS version 25. Normality test results of pre- and post-writing tasks and SLWAI scores are presented subsequently in Table 1 and 2 below.

Table 1

Normality test of pre- and post-writing tasks scores

Writing Tasks	Skewness	Kurtosis
Pre	.23	.043
Post	-.07	-.66
Difference	-.17	-1.07

In the analysis, the Skewness value of the pre-test was .23, the Kurtosis value was .04. The Skewness value of the post-test was -.07, and the Kurtosis value was -.66. The Skewness value of the difference was -.17, and the Kurtosis value was -1.07. According to Tabachnick, Fidell and Ullman (2013), Skewness and Kurtosis values are assumed to be normally distributed in the range of +1.5 to -1.5. Since the Skewness and Kurtosis values in the research are in this range, it provides the normal distribution. As $p < .05$ the study created a significant difference.

Table 2

Normality test of pre- and post-SLWAI scores

	Skewness	Kurtosis
Pre-writing	.88	.56
Post-writing	.61	-.24
Difference	-.78	.71

In the analysis, the Skewness value of the pre-test was .88, the Kurtosis value was .56. The Skewness value of the post-test was .61, and the Kurtosis value was -.24. The Skewness value of the difference was -.78, and the Kurtosis value was .71. According to Tabachnick et al. (2013), Skewness and Kurtosis values are assumed to be normally distributed in the range of +1.5 to -1.5. Since the Skewness and Kurtosis values in the research are in this range, it provides the normal distribution.

Frequency analyses and Paired Samples T-test were then employed to obtain results for the independent variables and determine the mean difference between the pre- and post-intervention periods. Qualitative data was gathered through semi-structured interviews. Additionally, peer comments on writing tasks assessed at the conclusion of the rubric were included. The researchers also took field notes based on emotional reactions, thoughts and observations during the training. The data gathered from interviews and comments underwent analysis using thematic content analysis (TCA). This approach, as outlined by Braun and Clarke (2006), focuses on addressing a specific research question through the recognition of recurring patterns among data sets. The researchers opted for TCA due to its flexibility, suitability for exploring complex topics, and its capacity to provide profound insights.

4. Findings

4.1. Research Question 1

Do the participants' English writing skills improve after the PA training? The analysis involved the assessment of pre-post scores analysed through SPSS. For the normality test of pre-writing scores, the assumption was made that values fell within the range of +1.5 to -1.5 for normal distribution. Consequently, a paired sample t-test was employed to compare the mean scores of pre- and post-writing tasks outlined in Table 3.

Table 3

Paired samples t-test analysis of pre and post-writing tasks scored by the researchers

Writing Tasks	N	X	Sd.	Std. Error Mean	df	t	r	p
Pre	30	10.80	2.56	.46	29	-19.99	.59**	.000*
Post	30	20.30	3.04	.55				

*.p< .05.

**. Correlation is significant at the 0.01 level (2-tailed).

According to the t-test results, the mean score of the pre-test was 10.80 out of 25 and the mean score of the post-test was revealed to be 20.30 out of 25. There was statistically significant difference between pre and post-tests as $t(29) = 19.99$, $p < .05$, $d = 3.66$. According to the Cohen's d statistic obtained, it indicates that the applied study has a high level of effect size (1960). Thus, it can be stated that PA practices have a positive impact on improving students' English

writing skills. Besides, comparison of mean scores of researchers and participants per task across ten writing tasks are shown in Figure 1.

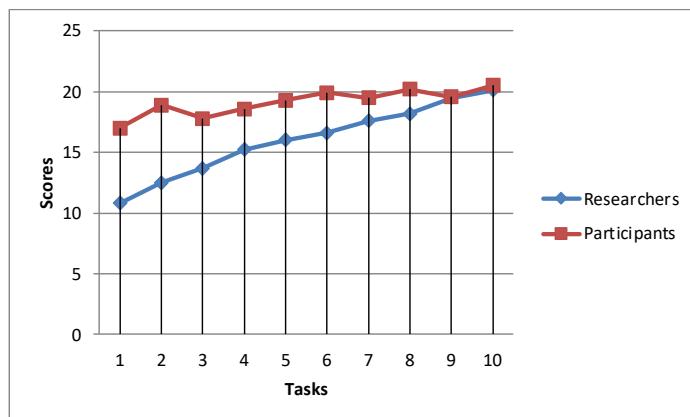


Figure 1

Comparison of mean scores of researchers and participants per task across ten writing tasks

The practice was provided to the students each week. The mean pre-test score of the participants was 14.66. The mean post-test score of the participants was revealed to be 20.5 out of 25 according to the PA. The mean scores of the participants both by the researchers and the participants per writing task increased dramatically. However, it is noteworthy that the peers' scoring was consistently higher than that of the researchers.

4.2. Research Question 2

Does PA training have an impact on reducing English writing anxiety of the participants? The normality test of pre-SLWAI scores was analysed. The values are assumed to be normally distributed in the range of +1.5 to -1.5. So, a paired samples t-test analysis from parametric tests was applied to compare the mean scores of pre-tests and post-test SLWAI. It is shown in Table 4.

Table 4

Paired samples t-test analysis of pre and post-SLWAI scores

SLWAI	N	X	Sd	Std. Error Mean	df	t	r	p
Pre	30	2.84	.71	.13	29	-2.99	.33	.006*
Post	30	2.40	.65	.11				

*p<.05.

According to the t-test results, the mean pre-test score of the participants was 2.84. The mean post-test score of the participants was 2.40. There was statistically significant difference found between pre and post-test as $t(29) = 2.99$, $p < .05$, $d = .54$. And the Cohen's d statistic indicates that the applied study has a medium level of effect size (1960).

Table 5

The percentages of participants' writing anxiety changes about pa

SLWAI	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Pre	22.72%	20.75%	23.33%	17.12%	16.06%
Post	36.66%	24.24%	20.30%	9.69%	9.09%

The percentages of the participants' writing anxiety changes about the PA training were calculated. The results show that the number of 'strongly disagree' and "disagree" were marked more. The number of 'undecideds' showed a slight decrease. The number of 'agree' and "strongly disagree" were marked less in the post questionnaire.

4.3. Research question 3

What are the perceptions of the participants about PA training? Semi-structured interviews were conducted to address the third research question. Furthermore, participants were required to respond to an open-ended question within the rubric for each writing assignment. Each participant's responses were individually examined and TCA was employed to extract their perceptions. This involved identifying, labelling and coding meaningful words, phrases and sentences. The codes attributed to the sections were categorized based on their interconnections into main themes and codes. The outcomes which highlight specific noteworthy statements obtained from the interviews are discussed below.

Table 6

Main themes and frequency of codes assigned to students' semi-structured interview

Main Themes	Codes	Frequencies
Assessment Behaviour and Fairness	fairness in assessment	11
	responsibility	8
	assessment challenges	5
	peer vs teacher	5
	friendship relations	5
Motivation	score stress	7
	enjoyment	7
	comparison against peers	6
	self-confidence	6
	feel shy	4
Teaching	boring	4
	useful	12
	informative	8
	rubric use	8
	word order	6
	clear criteria	6
	learn through mistakes	5

4.3.1. Assessment behaviour and fairness. Eleven participants mentioned about feeling a sense of obligation to be more attentive when assessing their peers' papers, which occasionally led to stress in scoring. This highlights the noticeable connection between knowledge and assessment (Mehrens, Popham & Ryan, 1998), as students less proficient in a skill may find it challenging to assess their peers accurately. Three participants expressed that receiving a low score from peers was harder to tolerate than a low score from a teacher. In contrast, eight participants noted a more relaxed atmosphere between peers compared to the teacher-student dynamic. An unexpected result related to friendship dynamics emerged, with some students treating PA as an error-hunting activity rather than a collaborative effort to help each other.

4.3.2. Motivation. Participants shared their perspectives on the technique, highlighting its enjoyable nature, effectiveness and motivational aspect. Moreover, this technique was uttered as a tool to enhance self-confidence. However, it is worth noting that some participants perceived it as dull and felt a sense of shyness. They inevitably compared themselves to their peers.

4.3.3. Teaching. Several participants pointed out the usefulness and informativeness of PA in improving their English writing. They emphasized the importance of learning by observing others' mistakes. This recognition of the self-awareness role in reading peers' writing aligns with the findings of Cho and Cho (2011), who concluded that assessors'

writing improved through responding to peers' writing. The use of clear criteria and rubrics provided guidance in this process.

4.3.4. Participants' comments on peer's writings. Participants were required to provide comments for their peer writings. It was at the end of rubric assessment. 115 comments made in a total of 300 writings were analysed. So, less than half of the paper had comments. The findings are categorized and presented in Table 7.

Table 7

Types of comments received by authors

Categories	Codes	Frequencies
Positive criticism	excellent, perfect, good, well-done, wonderful, I like it, meaningful, great, good job, creative ideas	60
Negative criticism	short text structure handwriting could be better, not so bad, not perfect mistakes vocabulary repetitive words irrelevant to the topic practice more	18 9 8 6 4 3 2 1 4
Suggestions		

The statements in Table 7 show that authors mostly received positive criticism. Besides, negative criticism was also seen pointing different aspects.

4.3.5. Analysis of field notes. The researchers kept field notes on the three themes throughout the study: translation, motivation and fear of making mistakes. The researchers observed that, in some instances, participants tended to resort to sentence translations using popular search engines. However, these translations were not always grammatically accurate or meaningful. The researchers intervened in certain instances to address this unhesitant approach.

According to the researchers' field notes, the participants developed a growing interest in writing in English. Their enthusiasm for learning and incorporating new vocabulary notably improved. Participants eagerly anticipated PA sessions, expressing excitement while assessing each other's writings once they became familiar with the process. Additionally, they were keen on identifying errors even though this occasionally instilled a fear of making mistakes. Taking on the role of a teacher increased their self-confidence and general feelings of happiness.

There was initially a reluctance to immediately accept peer feedback. However, they became familiar with using the scoring criteria in the rubric. So, as they received support from the teacher, they gradually became more open-minded. Unlike their immediate reactions at the outset, they did not respond immediately to the scores. Moreover, gaining awareness of what they already knew or had recently learned in the process contributed to their confidence and courage to continue writing.

5. Discussion

5.1. Discussion of the Findings for the RQ 1

RQ 1 aimed to determine whether there was an improvement in the English writing skills of gifted students following the PA training. The data derived from the written tasks demonstrated that PA positively influenced students' writing performance. The outcomes of this study align with findings from Dochy and McDowell, 1997; Izanlu and Feyli, 2015; Taymaz 2021 suggesting that PA can serve as an effective tool for learning. Other studies, such as those by Kurt and Atay, (2007) and Sluijsmans, Brand-Gruwel, and van Merriënboer, 2002 also explore and prove the effectiveness of PA

post-training. These studies share similarities with the present study in terms of research design and results, employing a quasi-experimental design involving student teachers' participation.

As depicted in Figure 1, the scores by both the researchers and peers exhibited a predominantly vertical increase from the beginning, overlapping towards the end. These results align with existing literature indicating that peers often assign higher scores (Dochy, Segers & Sluijsmans, 1999). However, a weak correlation between peer and teacher assessment scores was observed and they did not show significant simultaneous increases when considering the average scores of the written tasks analysed by both participants and the researchers. This discrepancy could stem from differences in students' opinions and more importantly, their proficiency in English. This finding supports Freeman's (1995) assertion that students need sufficient practice in PA to mitigate potential subjectivity-related discrepancies. The tendency for participants to consistently assign higher scores is possibly to encourage each other. It suggests that extended training practices might be more beneficial. Additionally, the participants' inclination to over-grade could be influenced by friendship relations. Despite utilizing a single-blind PA method, the participants may have felt obligated or inclined to provide higher scores, similar to findings in Cheng and Warren's study (1997).

The participants exhibited bravery in employing long and complex sentences, breaking the habit of relying on repetitive words in time. While the significant rise in their overall scores is noteworthy, attributing this improvement solely to PA training might be oversimplified. Despite the positive impacts observed, it is essential to acknowledge that students cannot be deemed expert assessors after a 12-week training period. Various factors beyond the researchers' control may influence the scores of students' writings, such as consistently practicing writing during the training, parental support for their English learning or additional English courses.

5.2. Discussion of the Findings for the RQ 2

RQ 2 aimed to investigate whether PA training had a significant difference in reducing English writing anxiety. A statistically significant overall decrease in writing anxiety was observed, irrespective of the students' performance levels, even among those with no prior experience in PA. Therefore, it can be asserted that PA practices exert a positive influence on decreasing English writing anxiety, as evidenced by the study's significant findings. Proper utilization of PA by teachers and students can enhance the teaching process. This aligns with the findings of Chen, 2021; Doğar-Kayadelen, 2018; Kurt and Atay, 2007; Sabanur-Koca, 2019 all confirming a decrease in writing anxiety and an increase in motivation among students. According to Vygotsky (1978), working within a child's Zone of Proximal Development (ZPD) - the realm of social interaction with more capable adults or peers - students engage in supportive activities that foster confidence and positive emotions. Therefore, PA holds paramount importance for collaboration and cooperation among students with varying levels of writing skills, aligning with the scaffolding theory, which is also evident in this study.

5.3. Discussion of the Findings for the RQ 3

The participants conveyed that PA is beneficial, enjoyable and informative for enhancing linguistic competence. Participants noted that PA helped them comprehend their peers' perspectives on their writings, fostering awareness of their own capabilities and enabling them to learn from their peers' mistakes during the assessment process (Min, 2005). Additionally, participants expressed that they heighten their sense of responsibility for their peers' learning, highlighting the significance of this collaboration in the classroom, supported by Haines (2004), who emphasized how PA provides students with opportunities to receive feedback from sources other than teachers or instructors.

The results regarding the participants' perceptions of writing also correlate with those obtained by Johnson (2001) in his study. Johnson noted that peer grading, writing for a real reader and the satisfaction of being read by peers serve as significant motivators for student participation in writing class. Nevertheless, participants expressed strong concerns regarding 'fairness in assessment,' both as authors and assessors during feedback exchanges, emphasizing the importance of 'friendship relations' and the anxiety associated with 'score stress.' In their initial experiences with giving and receiving feedback, they exhibited a level of naivety, as noted by Lee (2017). On the other side, some students had concerns about the fairness of their peers' assessments, valuing scores and expressing a preference for teacher assessment.

The researchers observed that students' mother tongue influenced their writing skills, a finding supported by Erarslan and Hol's (2014) study. It highlighted the learners' tendency to use Turkish structures interchangeably with English structures, resulting in inappropriate English responses. However, linguistic scholars like Kellerman view the errors made by beginner-level learners as developmental errors. They assert that transfer errors reflect the learners' evolving awareness of the language (1983).

Additionally, an unexpected observation was the participants' use of translation tools. According to Nurkamto and Drajati (2018), applications of translation tools have both positive and negative impacts on EFL learners. The study highlighted positive effects such as speed, rich vocabulary and practicality. However, negative consequences include word-context mismatches, the potential to stimulate laziness, and the development of addictive behaviour. Over time, the participants gradually abandoned this reliance on translation tools and, even when making mistakes in their writing, increasingly relied on their own knowledge.

6. Conclusion

Incorporating PA into English writing could be beneficial for developing students' writing abilities, evident in the noticeable impact of the training on participants. These outcomes indicate that PA training in writing serves as a useful option for engaging students in the assessment process and offers a means to enrich the assessment culture. The study's results, demonstrating an increase in writing skills and motivation are consistent with findings from other studies investigating the effectiveness of peer editing, such as those by Boon (2013), Bührke, Henkels, Klene and Pfister (2002), Can (2009), Rouhi and Azizian (2012) and Subaşı (2002).

Moreover, a meaningful difference was observed in participants' anxiety levels related to writing in English. Students held a positive perception of PA during writing and reinforced their confidence in English writings. Based on these findings, the study infers that PA training is more effective than solely relying on teacher assessments in reducing anxiety levels among English language learners in writing. Considering these insights, another key conclusion drawn from the study is that a well-structured training program holds the potential to diminish anxiety levels in English language learners, aligning with the findings of Kaynak (2017), Kurt and Atay (2007), Sengun (2002), Susoy and Tanyer (2013), and Zhang (2011).

Participants expressed that the training was useful, informative and enjoyable. Furthermore, they noted that it heightened their sense of responsibility, facilitated learning through mistakes and increased their self-confidence. The interaction and collaboration among students were highlighted as fostering a learning environment that was less anxious and tense aligning with the previous research by Kaynak (2017) and Yastıbaş and Yastıbaş (2015). However, participants acknowledged negative aspects, such as the stress associated with scores. Issues related to 'fairness in

assessment' and 'friendship relations' were consistently mentioned as significant hindrances. In summary, the study's findings indicate that incorporating PA instruction into English writing lessons is feasible (Liou & Peng, 2009; Min, 2005). These findings can serve as valuable support for administrators, program developers and teachers involved in the development and implementation of English lessons for gifted learners. The results may promote and endorse the integration of PA in the English curriculum for gifted education classes.

Genişletilmiş Türkçe Özeti

Giriş

İngilizce öğretiminde akran değerlendirmesi son yıllarda süreç yaklaşımının yükselişiyle yaygınlaşmıştır. Topping'e (2009) göre akran değerlendirmesi, diğer akranların ürün veya çalışmalarının düzeyini, değerini veya kalitesini değerlendirme ve belirleme organizasyonudur. Farklı şekillerde, yerlerde ve zamanlarda süreci veya sonucu değerlendirmek için kullanılabilir. Ürünler yazılı çalışmalar, sözlü sunumlar, portfolyolar şeklinde olabilir. Yüz yüze ya da yazılı olarak gerçekleştirilebilir. Akranlarının hatalarını tespit etmek ve kendilerini onlarla karşılaştırmak, yazılarına karşı daha eleştirel olmalarını sağlayabilir. Ancak, alanyazında İngilizce yazma konusunda özel yetenekli öğrencilerle bu yöntemi uygulamış bir çalışma bulunamamıştır.

Araştırma Amacı

Çalışmanın amacı, akran değerlendirmesi eğitiminin özel yetenekli öğrencilerin İngilizce yazma becerilerine etkisini araştırmaktır. Bu hedefe ulaşmak için aşağıdaki araştırma soruları oluşturulmuştur:

1. Akran değerlendirmesi özel yetenekli öğrencilerin İngilizce yazma yeterliliklerini geliştirmiştir midir?
2. Akran değerlendirmesinin özel yetenekli öğrencilerin İngilizce yazma kaygısını azaltmadan etkisi olmuş mudur?
3. Özel yetenekli öğrencilerin akran değerlendirmesi yöntemine ilişkin algıları nedir?

Yöntem

Araştırma Modeli

Karma araştırma deseninin kullanıldığı çalışmada, kolayda örneklem deney grubunun 12 haftalık katılımıyla nitel ve nicel veriler elde edilmiştir. Ön-son test zayıf deneyisel desen kullanılan araştırmmanın katılımcı grubunu Afyonkarahisar Dumlupınar Bilim ve Sanat Merkezi'nde (BİLSEM) öğrenim gören 30 özel yetenekli 5. sınıf öğrencisi oluşturmaktadır.

Veri Toplama Araçları ve Süreçleri

İlk nicel veri toplama aracı, öğrencilerin ders hedefleri ve temalarıyla uyumlu İngilizce yazdıkları yazıların puanlarıdır. Öğrenciler birbirlerinin yazılarını, bir dereceli puanlama anahtarları ile tek kör akran değerlendirme yöntemiyle değerlendirmiştir. Bu dereceli puanlama anahtarı, aynı zamanda araştırmacılar tarafından öğrencilerin yazılarını değerlendirmek için de kullanılmıştır. Diğer nicel veri toplama aracı ise Cheng (2004) tarafından geliştirilen İkinci Dilde Yazma Kaygısı Envanteridir. Ön-son test olarak kullanılan dereceli puanlama anahtarına ve İkinci Dilde Yazma Kaygısı Envanterine dayanarak elde edilen veriler bağımlı örneklemeler t-testi ile analiz edilmiştir.

Nicel verileri desteklemek amacıyla nitel veri toplama araçları da çalışmada yer almaktadır. Öğrencilerin çalışmaya yönelik algıları hakkında derinlemesine bilgi edinmek için araştırmacılar tarafından oluşturulan yarı yapılandırılmış görüşme formu kullanılmıştır. Yazıların puanlanmasıının ardından öğrencilerden "Yazılan metin hakkında genel bir yorumunuz var mı?" sorusuna cevap vermeleri istenmiştir. Ayrıca, araştırmacılar destekleyici kanıt olması için eğitim

süreci boyunca sınıfı saha notları tutmuşlardır. Görüşmelerden ve yorumlardan elde edilen veriler tematik içerik analizi kullanılarak analiz edilmiştir. Araştırmacılar, esnekliği, karmaşık konuları keşfetmeye uygunluğu ve derin içgörü sağlama kapasitesi nedeniyle bu analiz yöntemini tercih etmiştir.

Bulgular

Yazıların analizi sonucunda ön testin ortalama puanı 25 üzerinden 10.80 iken, son testin ortalama puanı 20.30'dur. Ön ve son testler arasında $t(29) = 19.99$, $p < .05$, $d = 3.66$ olduğu için istatistiksel olarak anlamlı bir fark vardır. Elde edilen Cohen'in d istatistiğine göre, uygulanan çalışmanın yüksek düzeyde etki büyülüğüne sahip olduğunu göstermektedir.

Öğrencilerin ikinci Dilde Yazma Kaygısı Envanteri ön test puan ortalaması 2,84, son test puan ortalaması ise 2.40'tır. Ön ve son test arasında $t(29) = 2.99$, $p < .05$, $d = .54$ olarak istatistiksel olarak anlamlı bir fark bulunmuştur. Ve Cohen'in d istatistiği elde edilmiştir. Bu da uygulanan çalışmanın orta düzeyde bir etki büyülüğüne sahip olduğunu göstermektedir.

Yarı yapılandırılmış görüşmelerin analizi anlamlı kelimelerin, ifadelerin ve cümlelerin tanımlanması, etiketlenmesi ve kodlanması üzerine kurulmuştur. Bölümlere atfedilen kodlar, birbirleriyle olan bağlantılarına göre ana temalar ve kodlar halinde kategorize edilmiştir. Görüşmelerden elde edilen ifadelere göre öne çıkan ana temalar "Değerlendirme Davranışı ve Adillik", "Motivasyon" ve "Öğretim" şeklindedir.

Öğrencilerin akranlarının yazıları için yaptıkları yorumlarda ifadeler, yazarların çoğunlukla olumlu eleştiriler aldığı göstermektedir. Bunun yanı sıra, farklı yönlerde işaret eden olumsuz eleştiriler de görülmüştür.

Araştırmacıların saha notlarında ise öğrencilerin çeviri araçlarına çalışmanın başında fazlaca başvurdukları, giderek motivasyonlarının arttığı ve hata yapma korkuları yer aldı.

Tartışma ve Sonuç

Metinlerden elde edilen veriler, akran değerlendirmesinin öğrencilerin dilsel yeterliliklerini olumlu yönde etkilediğini göstermiştir. Hem araştırmacıların hem de katılımcıların puanları başlangıçtan itibaren ağırlıklı olarak dikey bir artış göstermiş ve sonlara doğru üst üste gelmiştir. Ancak, akran ve öğretmen değerlendirme puanları arasında zayıf bir korelasyon gözlenmiş ve hem akranlar hem de araştırmacılar tarafından analiz edilen metinlerin ortalama puanları dikkate alındığında eş zamanlı olarak önemli artışlar göstermemiştir. Bu tutarsızlık, öğrencilerin görüşlerindeki farklılıklardan ve daha da önemli İngilizce yeterliliklerinden kaynaklanıyor olabilir. Genel puanlarındaki önemli artış kayda değer olmakla birlikte, bu gelişmeyi yalnızca akran değerlendirme çalışmasına bağlamak basit kaçabilir. Gözlenen olumlu etkilere rağmen, öğrencilerin 12 haftalık bir eğitim döneminden sonra uzman değerlendirciler olarak kabul edilmeleri mümkün değildir. Araştırmacıların kontrolü dışındaki çeşitli faktörler öğrencilerin yazılarının puanlarını etkileyebilir.

İngilizce yazmaya ilişkin kaygı envanteri puanlarının karşılaştırılmasıyla, öğrencilerin yeterlilik düzeylerine bakılmaksızın, daha önce akran değerlendirmesi deneyimi olmayanlar arasında bile yazma kaygısında istatistiksel olarak anlamlı bir genel düşüş gözlenmiştir. Dolayısıyla, çalışmanın anlamlı bulgularının da gösterdiği gibi, akran değerlendirmesi çalışmalarının İngilizce yazma kayısını azaltmada olumlu bir etkisi olduğu söylenebilir.

Katılımcılar eğitimin faydalı, bilgilendirici ve eğlenceli olduğunu ifade etmişlerdir. Ayrıca, sorumluluk duygularını artırdığını, hatalar yoluyla öğrenmeyi kolaylaştırdığını ve özgüvenlerini artırdığını belirttiler. Diğer taraftan öğrenciler arkadaşları tarafından adil değerlendirme ve puanlama konusunda ise kaygı duyuklarını belirtmiştir. Sonuç olarak,

akran değerlendirmesi uygulamasının öğrencilerin İngilizce yazma konusunda becerilerini, özgüvenlerini ve farkındalıklarını artırma potansiyeli vardır.

References

Acar, F. (2022). Enhancing critical thinking and English speaking skills of gifted students through "Philosophy for Children (P4C) approach" in an EFL context. [Unpublished master's thesis]. Pamukkale University.

Akarsu, F. (2004) Üstün yetenekliler, üstün yetenekli çocuklar seçilmiş makaleler kitabı, Ed.: M. R. Şirin, A. Kulaksızoğlu, A. E. Bilgili, Çocuk Vakfı Yayınları, İstanbul, s. 127-154.

Bakioğlu, A., & Levent, F. (2013). Suggestions for gifted education in Turkey. *Journal of Gifted Education Research*, 1(1), 31-44.

Berg, B. C. (1999). The effects of trained peer response on ESL students' revision types and writing quality. *Journal of Second Language Writing*, 8(3), 215–241.

Beşkardeş-Günay, S. (2007). Üstün zekali ve özel yetenekli öğrencilerin yabancı dil (İngilizce) öğretiminde metafor sisteminin uygulanması. [Unpublished master's thesis]. Afyon Kocatepe University.

Birjandi P & Tamjid NH. (2012). The role of self-, peer and teacher assessment in promoting Iranian EFL learners' writing performance. *Assessment & Evaluation in Higher Education* 37(5): 513–533. <http://dx.doi.org/10.1080/02602938.2010.549204>.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2), 17-18.

Bruning, R., & Horn, C. (2000). Developing motivation to write. *Educational Psychologist*, 35(1), 25-37. From https://doi.org/10.1207/S15326985EP3501_4.

Bush, T. (2012). Authenticity in research: Reliability, validity and triangulation. *Research Methods in Educational Leadership and Management*, 75-89.

Buhrke, L., Henkels, L., Klene, J., & Pfister, H. (2002). Improving fourth grade students' writing skills and attitudes. Retrieved from ERIC database. (ED471788).

Can, A. (2018). SPSS ile bilimsel araştırma sürecinde nicel veri analizi. Pegem Atıf İndeksi, 001-429.

Chen, W. (2021). Understanding students' motivation in L2 collaborative writing. *ELT Journal*, 75(4), 442-450.

Cheng, Y. S. (2004). A measure of second language writing anxiety: Scale development and preliminary validation. *Journal of second language writing*, 13(4), 313-335.

Cho, Y. H., & Cho, K. (2011). Peer reviewers learn from giving comments. *Instructional Science*, 39, 629-643.

Cohen J (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement* 20:37-46.

Creswell, J. W. (2007). Educational research: planning, conducting, and evaluating quantitative and qualitative research (3. Baskı ed.). Upper Saddle River, NJ: Prentice Hall.

Davis, G. A. (2019). Gifted children and gifted education: A handbook for teachers and parents. United States: Great Potential Press.

Demir, S. (2019). The effectiveness of EFL students' peer feedback practices in composition classes: A case study at a state university in Türkiye. [Unpublished master's thesis]. Middle East Technical University.

Demirel, E. T. (2009). An investigation of a complementary feedback model for L2 writing: Peer and teacher feedback versus teacher feedback. [Unpublished master's thesis]. Middle East Technical University.

Dochy, F. J., & McDowell, L. (1997). Introduction: Assessment as a tool for learning. *Studies in Educational Evaluation*, 23(4), 279-98.

Dochy, F. J. R. C., Segers, M., & Sluijsmans, D. (1999). The use of self-, peer and co-assessment in higher education: A review. *Studies in Higher education*, 24(3), 331-350.

Doğar-Kayadelen, B. (2018). Peer editing as a writing assessment to young learners in English writing classes. [Unpublished master's thesis]. Erciyes University.

Erarslan, A., & Hol, D. (2014). Language interference on English: Transfer on the vocabulary, tense and preposition use of freshmen Turkish EFL learners. *Elta Journal*, 2(2), 4-22.

Falchikov, N., & Goldfinch, J. (2000) Student PA in higher education: A meta-analysis comparing peer and teacher marks. *Review of Educational Research* 70(3): 287-322.

Franklin, M. J., & Friedl, B. C. (1973). Teaching gifted students foreign language in grades ten through twelve. Institute of Educational Science

Freeman, M. (1995). PA by groups of group work. *Assessment & Evaluation in Higher Education*, 20(3), 289-300.

Galvan, M. C., & Pyrczak, F. (2016). Writing empirical research reports: A basic guide for students of the social and behavioral sciences. Routledge.

Haines, C. (2004). Assessing students' written work. Marking essays and reports. London: Routledge Falmer.

Hajar, S. (2017). Students' Perception of PA in Improving Students' Speaking Skill (A Case Study at The Department of English Language Education) (Doctoral dissertation, UIN Ar-Raniry Banda Aceh).

Izanlu, M., & Feyli, M. (2015). The effects of symmetrical and asymmetrical scaffolding on university students' grammar acquisition. *Journal of Advances in English Language Teaching*, 3(6), 106-115.

James, P. (2000) A blueprint for skills assessment in higher education. *Assessment and Evaluation in Higher Education*, 25 (4), pp. 353–367.

Johnson, R. (2001). The next frontier of the student-centered classroom: Teaching students to recognize quality writing through the use of peer evaluation. Retrieved from ERIC database. (ED 463813).

Kaynak, M. (2017). Impact of Peer Feedback on Efl Learners' Foreign Language Writing Anxiety and their Ideas About Peer Feedback. [Unpublished doctoral dissertation], Anadolu University.

Kellerman, E. (1983). Now You See It, Now You Don't. In S. Gass, & L. Selinker (Eds.), *Language Transfer in Language Learning* (pp. 112-134). Rowley, MA: Newbury House.

Kızıl, V. (2019). PA in EFL Writing Classes. *The Journal of International Lingual Social and Educational Sciences*, 5(1), 101-111.

Koca, G.S. (2019). Peer Teaching and its Implications on Middle School EFL Learners'Writing Motivation. [Unpublished Master Thesis], Pamukkale University.

Kurt, G., & Atay, D. (2007). The effects of peer feedback on the writing anxiety of prospective Turkish teachers of English. *Journal of Theory and practice in Education*, 3.

Kwok, L. (2008). Students' perception of peer evaluation and teachers' role in seminar discussions. *Electronic Journal of Foreign Language Teaching*, 5(1), 84-97.

Lee, I. (2017). Classroom writing assessment and feedback in L2 school contexts, Springer. Singapore: Springer Singapore.

Liou, H. C., & Peng, Z. Y. (2009). Training effects on computer-mediated peer review. *System*, 37(3), 514-525.

Lukin, K., & Grigorenko, E. L. (2009). We can still do this, or can we? The Russian system of educating and promoting talent in mathematics and science. *The Routledge International Companion to Gifted Education*, 92.

MEB. (2019). Bilim ve Sanat Merkezleri yönetgesi [Regulations of science and art centers].
<http://mevzuat.meb.gov.tr/dosyalar/2039.pdf>

Mehrens, W. A., Popham, W. J., & Ryan, J. M. (1998). How to prepare students for performance assessments. *Educational Measurement: Issues and Practice*, 17(1), 18-22.

Min, H. (2005). Training students to become successful peer reviewers. *System*, 33, 293-308.

Mok, J. (2011). A case study of students' perceptions of PA in Hong Kong. *ELT journal*, 65(3), 230-239.
<https://doi.org/10.1093/elt/ccq062>

Musfirah, Y. (2019). The use of PA in speaking skill. *English Education Journal*, 10(1), 67-79.

Nilson, L. B. (2003). Improving student peer feedback. *College Teaching*, 51(1), 34-38.

Nunan, D. (1991). Language teaching methodology: A textbook for teacher. Upper Saddle River, NJ: Prentice Hall.

Nurkamto, J., & Drajati, N. A. (2018). EFL learners in digital age: The tendency and impact of using translation tool application in writing English text. *the Thinking Process*, 1.

Okan, Z. & İşpınar, D. (2009). Gifted students' perceptions of learning English as a foreign language. *Educational Research and Review*, 4 (4), 117-126

Peng, J. (2010). PA in an EFL context: Attitudes and correlations. In *Selected Proceedings of the 2008 Second Language Research Forum*, ed. Matthew T. Prior et al (pp. 89-107).

Prastika, A. C. (2020). The use of PA technique to improve speaking performance of junior high school students of Gula Putih Mataram. (Doctoral dissertation, IAIN Metro).

Rimm, S. B., Siegle, D., & Davis, G. A. (2018). Education of the gifted and talented (pp. 233-236). Boston, MA: Pearson.

Rollinson, P. (2005). Using peer feedback in the ESL writing class. *ELT Journal*, 59, (1), 23-30.

Rouhi, A., & Azizian, E. (2013). Peer review: Is giving corrective feedback better than receiving it in L2 writing? *Procedia – Social and Behavioral Sciences*, 93, 1349-1354. <http://www.sciencedirect.com/science/article/pii/S1877042813034873>

Sabanur-Koca, G. (2019). Peer teaching and its implications on middle school EFL learners' writing motivation. [Unpublished master's thesis]. Pamukkale University.

Saito, H. (2008). EFL classroom PA: Training effects on rating and commenting. *Language Testing*, 25(4), 553–581. From doi:10.1177/0265532208094276

Sak, U., Ayas, B., Bal-Sezerel, B., Öpengin, E., Özdemir, N. N., & Demirel-Gürbüz, Ş. (2015). A critical assessment of the education for gifted and talented students in Türkiye. *Gifted education in Asia*, 167-190.

Sak, U., Ayas, M. B., Sezerel, B. B., Öpengin, E., Özdemir, N. N. & Demirel, G. Ş. (2021). Gifted and talented education in Türkiye: Critics and prospects. *Talent*, 5(2), 110–132. <https://theeducationjournals.com/index.php/talent/article/view/38>

Savaş, H. (2013). A study on the evaluation and the development of computerized essay scoring rubrics in terms of reliability and validity. [Unpublished master's thesis]. Çağ University.

Shaw, V. N. (2002). Peer review as a motivating device in the training of writing skills for college students. *Journal of College Reading and Learning*, 33(1), 68-76.

Sengun, D. (2002). The Impact of Training on Peer Feedback in Process Approach Implemented EFL Writing Classes: A Case Study [Unpublished master's thesis], Middle East Technical University.

Sluijsmans, D. M., Brand-Gruwel, S., & van Merriënboer, J. J. (2002). PA training in teacher education: Effects on performance and perceptions. *Assessment & Evaluation in Higher Education*, 27(5), 443-454.

Subaşı, G. (2002). Peer written feedback training and its impact on students' writing outcomes. [Unpublished Masters Thesis]. Anadolu University.

Susoy, Z. & Tanyer, S. (2013). A closer look at the foreign language writing anxiety of Turkish EFL pre-service teachers. Paper presented at the International Academic Conference on Education, Teaching and E-learning, Prague, Czech Republic.

Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2013). Using multivariate statistics, (6), pp. 497-516). Boston, MA: Pearson.

Taymaz, N. (2021). Promoting peer scaffolding through analytic feedback criteria: From a perspective of error analysis in writing based on learner corpus. [Unpublished master's thesis]. Gazi University.

Tokcan, İ. M. (2022). Factors that determine the efficacy of teaching English to gifted children: implications for the development of ELT programs. [Unpublished master's thesis]. Maltepe University.

Topping, K. J. (2009). PA. *Theory into practice*, 48(1), 20-27. <https://doi.org/10.1080/00405840802577569>

Trochim, W. (2000). The Research Methods Knowledge Base, 2nd Edition. Atomic Dog Publishing: Cincinnati, OH.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Watters, J. J. & Diezmann, C. M. (2003). The gifted student in science: Fulfilling potential. *Australian Science Teachers Journal*, 49(3), 46-53.

Yastıbaş, G. Ç., & Yastıbaş, A. E. (2015). The effect of peer feedback on writing anxiety in Turkish EFL (English as a foreign language) students. *Procedia-Social and Behavioral Sciences*, 199, 530-538.

Zamel, V. (1982). Writing: The process of discovering meaning. *TESOL Quarterly*, 16(2), 195-209.