Education and Science

Original Article

Vol 50 (2025) No 222 141-162

The Role of Attitude, Self-Efficacy and Metacognitive Strategy Awareness in Writing Skill: Which is More Effective?

Elif Demir [1], Yusuf Günaydın [2], Kemalettin Deniz [3]

Abstract

Many studies in the current literature have explored various aspects of writing skill, including factors influencing the writing process, writing skill development, motivation to write, and effective writing methods. This study aims to explore the factors that contribute to writing skill proficiency. Based on the literature review, the factors investigated in this study encompassed writing attitude, writing self-efficacy, and metacognitive awareness of writing strategies. This study adopted a correlational approach to determine the role played by attitude, self-efficacy, and metacognitive strategy awareness in writing skills. The study group of the research comprises 265 7th grade students from Atatürk Secondary School, Mehmet Emin Yurdakul Secondary School, and Nasreddin Hoca Secondary School in the Yenimahalle district of Ankara province. Data collection involved the use of the Attitude Towards Writing Scale, Writing Self-Efficacy Scale, Metacognitive Writing Strategies Awareness Scale, and narrative texts composed by students. Student texts were evaluated using a Writing Skill Rubric. Data analysis was performed using Microsoft Excel, and the statistical software SPSS 26.0. The Pearson Product-Moment Correlation Coefficient (PPMCC) was employed to assess the relationships between study variables, while simple, and multiple linear regression analysis were used to determine the predictive impact of independent variables on the dependent variable. The findings of this study indicate a positive correlation between attitude, self-efficacy, metacognitive writing strategy awareness, and students' writing skills. Additionally self-efficacy, and attitude were found to be predictors of students' writing skills, whereas metacognitive writing strategy awareness did not demonstrate a significant predictive effect. Based on the study outcomes, several recommendations have been proposed for researchers.

Keywords

Writing attitude

Writing self-efficacy

Writing metacognitive strategy awareness

Writing skill

Narrative text

Article Info

Received: 11.28.2023

Accepted: 09.28.2024

Published Online: 04.08.2025

DOI: 10.15390/EB.2025.13314

[1] Gazi University, Gazi Faculty of Education, Department of Turkish and Social Sciences Education, Türkiye, demirelif666@gmail.com

[2] Gazi University, Gazi Faculty of Education, Department of Turkish and Social Sciences Education, Türkiye, yusufgunaydin@gazi.edu.tr

[3] Gazi University, Gazi Faculty of Education, Department of Turkish and Social Sciences Education, Türkiye, kdeniz@gazi.edu.tr

Introduction

The Importance of Writing Skill

Writing is a significiant skill that empowers students to articulate their emotion, idea, and aspirations on any topic with well-planned and effective use of language, adhering to the conventions of their chosen genre. It is an essential and complementary component of language development. Learning to write is not only an addit skill to language development; it constitutes an integral and transformative part of such growth (Berman, 2004). Writing, a social skill, serves as a means for individuals to communicate. This skill is acquired and practiced within social contexts, enabling individuals to establish connections, alter the writer's social identity, and construct shared understandings (Bazerman, 2016). Consequently, it is imperative to improve this skill to fully participate in contemporary societal interactions and carve out one's place. Enhancing writing abilities ranks among the paramount educational objectives; nonetheless, students may not attain same proficiency, and success in generating written text for various reasons. The complexity of its structure and many variables are effective make writing more challenging to cultivate than other language competencies. Achieving proficiency in writing surpasses the difficulties encountered in reading, speaking, and listening (Herrick & Otto, 1961). However, it has been revealed that proficiency in writing has a direct impact on one's ability to reading comprehension (Bruning & Horn, 2000); consequently, it is one of the most crucial skills to acquire (Hammill 2004). In this point it is imperative to understand the various factors influencing the progression of writing abilities. Over the years, researchers have investigated various aspects of writing skill development, including mental factors, instructional techniques, motivation to write, using of technology in writing education, measurement and assessment (Uyar, 2016). The growing emphasis on the significance of honing writing skills underscores the pivotal role that cognitive and motivational factors play in this domain (Schunk & Zimmerman, 2007). Determining what these cognitive and motivational factors that affect writing skills are, which of them affect students' writing skills, and to what extent these factors affect students' writing skills in general and their ability to create a fictional text, in other words, a narrative text in particular, will contribute to improve students' writing skills thus to the studies to be carried out to improve students' writing skills.

Writing Skill and Writing Attitude

Writing is an intricate social performance in which individuals express meaning, goals, actions, relationships, and identities based on shared texts and information within a constantly evolving world (Bazerman, 2016). From this perspective, the cultivation of writing skills requires the capacity to produce well-structured and coherent text for various communication purposes. Learning to write is viewed as a complex undertaking, and the competent utilization of writing as a means of linguistic expression entails an extended developmental journey (Tolchinsky, 2016). For this reason researchers tent to explain factors such as attitude towards writing, writing self-efficacy, and metacognitive awareness of writing strategies when explaining the progression of writing skills.

Attitude is a key motivational element that influences writing achievement. According to perspectives on motivation, attitudes represent an emotional state of motivation (Anderman & Wolters, 2006). It is defined as a learned predisposition to respond positively or negatively to a particular object consistently (Fishbein & Ajzen, 1975) or a psychological disposition that measures the level of liking or disliking for a specific phenomenon (Eagly & Chaiken, 1993). Writing attitude is an affective disposition involving how the act of writing makes the author feel, ranging from happy to unhappy, and a significant aspect of motivational factors (Graham, Berninger, & Fan, 2007). Attitudes towards writing correlate with writing success (Knudson, 1991, 1992, 1993, 1995). As students acquire more knowledge of writing and develop their skills as writers, their attitıdes towards writing become more positive, which in turn improves the relationship between attitude and performance (Graham et al., 2007). The connection between attitude and performance is interrelated, and each factor influences the development of the other (Mathewson, 1994). Students experiencing low performance or struggles in writing may develop a negative attitude, while consistent writing achievements can foster a positive attitude (Kear, Coffman, McKenna, & Ambrosio, 2000). Consequently, attitude can significantly impact a student's ultimate level of ability, with its effect on participation and practice, among other factors (McKenna, Kear, & Elisworth, 1995).

The literature indicates that students tend to adopt a negative attitude towards writing as they progress through higher grade levels (Karatay, 2011; Kear et al., 2000), and the quality of their living environment plays a crucial role in shaping their attitudes towards writing (Cunningham, 2008). For this reason, there is a need for research aimed at cultivating positive attitudes towards writing to enhance students' writing skills. In addition to writing attitude, which expresses a positive or negative tendency towards writing or liking or disliking writing, another important factor affecting writing skills is students' writing self-efficacy, which is included in their motivation to write.

Writing Skill and Writing Self-Efficacy

While numerous studies have been conducted on the topic of writing motivation, given its pivotal role in influencing writing, there is still much to be explored in this field (Hidi & Boscolo, 2006; Hidi & McLaren, 1991). The term "motivation" encompasses two meanings: it can be either the driving force behind a person's actions or the purpose behind those actions. People engage in writing, motivated either by external circumstances that stimulate them or by internal reasons, such as the desire to influence others (Nelson, 2007). Therefore, motivation has a significant effect on the acquisition and development of writing skills (Arıcı & Ungan, 2012; Graham, 2006; Hayes, 1996; Zimmerman & Reisemberg, 1997). Writing self-efficacy, a cornerstone of students' motivation to write, profoundly affects their writing proficiency.

According to Bandura's (1986, 1989, 2001), social cognitive theory human functioning is based on dynamic interactions between personal factors (e.g., thoughts and beliefs), environmental conditions, and behavioral responses. Self-efficacy involves personal judgments regarding one's ability to effectively plan and execute actions in specific situations, even when they may involve new, unpredictable, and potentially challenging circumstances (Bandura, 1977, 1981, 1982). Self-efficacy, which can be defined as an individual's assessment of his or her ability to perform a future task, is a well-researched aspect of human motivation and is based on one's predictions of task performance (Troia, Shankland, & Wolbers, 2012). Few factors influence human performance as significantly as self-efficacy does (Bandura, 1997). This concept encompasses outcome expectations, beliefs in actions leading to desired results, qualifications expectations, and confidence in performing those qualifications effectively (Bandura, 1997; Eccles & Wigfield, 2002; Schunk, 1989a, 1989b).

Writing self-efficacy refers to individuals' judgment of how well they can accomplish a writing task based on their assessment of "various compositional, grammatical, usage and mechanical skills" (Pajares & Valiante, 2001). Therefore students' beliefs about their writing capacity play a crucial role in the development of their writing skills. "Self-efficacy beliefs and writing competence work together, and developing one requires developing the other" (Pajares, 2007, p. 246). Studies in the literatüre underscore the link between writing achievement and self-efficacy (McCarthy, Meier, & Rinderer, 1985; Schunk & Swartz, 1993; Shell, Colvin, & Bruning, 1995; Shell, Murphy, & Bruning, 1989; Pajares & Johnson, 1994; Pajares & Johnson, 1996; Pajares, Miller, & Johnson, 1999). However, further research is needed to understand the pivotal role of self-efficacy in enhancing students writing skills.

Students' attitudes towards writing, in other words, whether they like writing or not, and their beliefs that they can be successful in writing, in other words, their writing self-efficacy, affect students' performance at the desired level in writing skills. In addition, another factor that is thought to have an effect on writing skills is the metacognitive writing strategy awareness. Because the student's ability to perform at the desired level in writing skills depends on their ability to plan, manage, evaluate and revise what they write and control the process.

Writing Skill and Metacognitive Writing Strategy Awareness

Writing skill relies on the complex intertwining of cognitive, linguistic, and emotional processes (Perin, Lauterbach, Raufman, & Kalamkarian, 2017). In this point, the use of metacognitive strategies has a significant impact on writing abilities. Writing is a metacognitive process that extends beyond cognition (Flower & Hayes, 1984; Graham & Perin, 2007). As emphasized by Flavell (1979), metacognition plays a crucial role in various aspects of communication such as sharing information orally, persuading through speech, understanding verbal content, comprehending written text, writing, acquiring language skills, maintaining focus, remembering, problem-solving, grasping social cues, and exercising self-control and self-regulation.

Metacognitive theory encompasses both includes metacognitive knowledge and metacognitive strategy. Between these metacognitive strategies stand out as high-level control skills that involve planning, monitoring, and evaluation. It is employed to plan, oversee, assess, manage, and comprehend the methods applied to address various challenges (Goctu, 2017). Metacognitive strategies refer to the techniques that learners employ to handle, oversee, and assess their learning activities. These skills encompass the approaches, thought processes, and actions used to regulate cognitive and learning processes (Lv & Chen, 2010). Wenden (1991) defines metacognitive strategies as the mental procedures or operations that students use to govern their learning experiences. As described by Pintrich (1999), metacognitive thinking is a vital process that illuminates the regulation and supervision of cognition, making it a crucial aspect of the learning process.

Existing literature categorizes metacognitive strategies into various types, such as planning, monitoring, and evaluation (Brown, Bransford, Ferrara, & Campione, 1983), as well as planning, translation, monitoring, evaluation, and revision (Flower & Hayes, 1981; Wenden, 1998). These classifications can be applied to various learning tasks. The effective execution of a writing task depends directly on metacognitive strategies and awareness of these strategies. Consequently, metacognitive writing strategies enhance writing quality by involving processes such as planning, drafting, monitoring, and evaluating, before, during, and after the writing process (Schraw, 1998; Todd, 2002; Zimmerman, 1995). Within these processes, planning entails decision-making, evaluation involves assessing the quality of the written work, and monitoring provides oversight throughout the entire process by identifying obstacles and indicating when and why progress is hindered (Wenden, 1991).

By understanding how to employ metacognitive strategies in writing, students become aware of their cognitive and emotional abilities related to their beliefs and attitudes towards writing. They understand the necessity of having a clear topic, purpose, and organized structure in their writing. This awareness extends to understanding stylistic elements of writing, such as planning, drafting, revising, and editing. Students learn to incorporate this knowledge into their writing process. This heightened awareness of metacognitive strategies nurtures students' cognitive development. When organizing their thoughts, students apply this awareness by planning, sketching, monitoring, evaluating, and revising their work before, during, and after writing (Flavell, 1979; Harris, Santangelo, & Graham, 2010). Mastering the art of writing poses a significant cognitive challenge, demanding the simultaneous use of memory, language, and thinking skills (Kellogg, 2001). The writing process involves generating ideas, crafting text, refining ideas and texts (Hayes & Flower, 1980; Kellogg, 1996). To excel in writing, one must possess the ability to maintain multiple representations, control interactions between planning, creating, and revising (Kellogg & Raulerson, 2007). Understanding this intricate writing structure underscores the importance of studies exploring the teaching of metacognitive writing strategies and their impact on enhancing writing skills.

Text Types in the Writing Skill

Another important factor that will affect the development of writing skills is the type of text. Researchers agree that writing is a multidimensional effort (Arı, 2010; Bazerman, 2016; Bruning & Horn, 2000; Kellogg & Raulerson, 2007; Schunk & Zimmerman, 2007; Uyar, 2016). In writing, students should not only apply and transfer their knowledge but also consider how to structure their content to create a real text (Tavşanlı, Bilgin, Yıldırım, Rasinski, & Tschantz, 2020). The selection of text type also had a

significant influence on the quality of the resulting written product. This choice is related to the organization of meaning in the text's deep structure. Presenting abstract meaning in the deep structure of the text through an understandable and impressive type in the surface structure is a critical element that enhances the comprehensibility of the text. Consequently, determining text type is imperative for shaping deep structures. The nature of the subject matter is a pivotal factor in determining text type (Onan, 2015).

In the Turkish Course Curriculum (Grades 1-8), text is divided into three primary formats: informative, narrative, and poetry, and the learning outcome "(Student) writes the narrative text" is included from the third grade (MoNE, 2019). Narrative texts are intimately connected with contextually specific daily experiences (Britton & Pelligrini, 1990; Nelson, 1986). Both narrative texts and everyday experiences involve individuals taking action to accomplish objectives, facing obstacles to these goals, and reactings emotionally to events (Graesser, Singer, & Trabasso, 1994). Writing skill involve components such as punctuation, spelling, grammar accuracy, coherence, word selection, and text organization (Kellogg & Raulerson, 2007). As a result, being a proficient writer requires mastery of aspects of language knowledge such as phonology, morphology, vocabulary usage, pragmatics, and discourse (Alamargot & Chanquoy, 2001). When students create a narrative piece of writing, they consider factors such as content, arrangement of ideas and meaning, grammatical structure of sentences, and their relationships with each other. They also focus on coherence and word selection. It is important to explore how students combine these elements to form a whole and achieve success.

The Current Study

Writing is an essential skill because of its integration with language development and its complex structure. Factors such as attitude, self-efficacy, and awareness of metacognitive strategies play a crucial role in this process. Students' poor performance in writing tasks is often linked to motivational issues (Wright, Hodges, & McTique, 2019). Young writers must form beliefs about the significance of writing and their ability to communicate effectively through this skill (Klassen, 2002). Attitude, which represents a positive or negative perspective, is a vital emotional aspect of motivation. Therefore, it is crucial to investigate how attitude influences writing skills. While current literature discusses the relationship between writing skills and attitudes (Cunningham, 2008; Graham et al., 2007; Karatay, 2011; Kear et al., 2000; Knudson, 1992, 1993, 1995), there is a scarcity of research examining attitudes alongside other factors impacting writing. Another significant factor is self-efficacy, and it is essential to assess students' writing self-efficacy. Consequently, the relationship between writing skills and self-efficacy has been examined (Bruning & Horn, 2000; Pajares & Johnson, 1994, 1996; Pajares et al., 1999; Pajares & Valiante, 1997, 1999, 2001; Rankin, Bruning, & Timme, 1994; Schunk & Swartz, 1993; Shell et al., 1995; Shell et al., 1989; Zimmerman & Bandura, 1994). Writing skill is closely linked to the use of strategies, a connection emphasized in the Turkish course curriculum (Grades 1-8) through the outcome "(Student) applies writing strategies" from the first grade (MoNE, 2019). Many studies have explored the relationship between writing skills and metacognitive strategy use (Flavell, 1979; Flower & Hayes, 1984; Graham & Perin, 2007; Harris et al., 2010; Schraw, 1998; Todd, 2002; Zimmerman, 1995; Wenden, 1991).

When the literature is examined, there are studies on the relationship between writing attitude and writing skills, writing self-efficacy and writing skills, metacognitive writing strategies awareness and writing skills. However, there is a gap in research examining attitude, self-efficacy, and metacognitive strategy use awareness together and how these factors collectively influence writing skills. There is no holistic study that reveals to what extent these factors affect secondary school students' writing skills in general and their ability to compose a fictional text in particular. Understanding the impact of these elements on students' writing performance is essential for developing writing skills. For this reason, it is important to know to what extent students' attitudes towards writing, self-efficacy and metacognitive strategy awareness are effective on their writing performances in terms of developing writing skills, designing writing activities for students in terms of these factors, as well as planning practical studies for researchers in terms of these factors.

This study focused on 7th grade students, taking into account their developmental stage and familiarity with narrative writing since the 3rd grade. The 7th grade students were also chosen because they were almost at the last stage of secondary school. Data for the study were collected during the second semester of the academic year to fulfill these objectives. In Turkey, 8th grade students were excluded from the study because they were actively preparing for the High School Entrance System (LGS); as a result, they did not opt to participate in the research. The study involved three schools in which students were tasked with composing narrative text. This choice was made because the Turkish course curriculum (Grades 1-8) expected students to engage in narrative writing from the 3rd grade, so they were subjected to such training within the scope of writing skills. Additionally, the decision to choose narrative texts was influenced by their imaginative nature, their willingness to write in this type, and the fact that it does not require extensive prior knowledge or preparation. In this context, the limitations are that the study was conducted with 7th grade students and in three secondary schools in Yenimahalle district of Ankara province, and the factors affecting writing in the study were determined as writing attitude, writing self-efficacy and writing metacognitive strategies awareness. The primary objective of this study was to reveal the correlations between writing attitude, writing self-efficacy and metacognitive writing strategies awareness with the writing skills of 7th grade middle school students in general and their performance in writing a narrative text in particular. In light of these aims, the following research questions were sought.

1. Is there a correlation between writing skills of 7th grade middle school students and attitude?
2. Is there a correlation between writing skills of 7th grade middle school students and self-efficacy?
3. Is there a correlation between writing skills of 7th grade middle school students and metacognitive strategy awareness?
4. Does attitude, self-efficiency, and metacognitive strategy awareness predict writing skill of 7th grade middle school students?

Method

Research Model

The current study is a correlational study that aims to identify the role of writing attitude, writing self-efficacy, and writing metacognitive strategy awareness in writing skills. Predictive design, one of the correlational design types, was used in the study. "The purpose of the predictive research design is to determine the variables that will predict the outcome and criterion. In this research design, the researcher determines one or more predictor variables and a criterion (outcome) variable." (Creswell, 2017, p. 435-436). The predictor variables of this study were writing attitude, writing self-efficacy and metacognitive strategy awareness, while the criterion variable was success in writing narrative texts.

Participants

The research group of this study was determined by appropriate sampling method. "Appropriate sampling; it is a method in which units that are close and easy to reach are selected as samples." (Yıldırım, 2021, p. 75). In this context the data for the study were gathered from 265 students who were in the 7th grade and attending from Atatürk Secondary School, Mehmet Emin Yurdakul Secondary School and Nasreddin Hoca Secondary School within the Yenimahalle district of Ankara province. The reason why 7th grade students were selected for the research group that they have reached the last stage of secondary school, they have been introduced to the narrative text genre since the 3rd grade, and they should have reached a certain level of cognitive and developmental proficiency in their writing skills, as outlined in the Turkish Course Curriculum (MoNE, 2019). 8th grade students were not included in the study because they did not volunteer to participate in the study due to the High School Entrance System (LGS). Of these participants, 129 (48.68%) were female, and 136 (51.32%) were male. Schools were selected for the accessibility and diversity of the collected data.

Measurement Tools

In this study, Personel Information Form, Attitude Towards Writing Scale for Secondary School Students, Writing Self-Efficacy Scale for Secondary School Students, Metacognitive Writing Strategy Awareness Scale (MWSAS) and Writing Skill Rubric were used as data collection tools. The selection of the measurement tools was influenced by the fact that the scales in question were oriented towards attitude, self-efficacy and metacognitive strategy use awareness, which are the variables whose correlations with writing skills will be examined within the scope of the research, and that they serve the purpose of the study. In addition, the Writing Skill Rubric developed by the researchers was also used as a measurement tool in the study to determine the students' writing skill achievements.

Personel Information Form

The researchers developed a Personal Information Form to collect data on the gender distribution of the participants.

Attitude Towards Writing Scale for Secondary School Students

Can and Topçuoğlu Ünal developed this scale to assess secondary school students' attitudes towards writing. The scale consists of three key factors: "interest," "perception," and "contribution." Together, these factors account for 43.7% of the total variance in the scale. It is a 5-point Likert-type scale comprising 23 items. To evaluate the scale's reliability, Cronbach's alpha internal coefficients were computed, resulting in a value of 0.891 (Can & Topçuoğlu Ünal, 2017).

Writing Self-Efficacy Scale for Secondary School Students

Şengül (2013) developed this scale to assess secondary school students' self-efficacy beliefs about their writing skills. It is a 5-point Likert-type tool comprising 40 items categorized into four sub-factors: "writing skill awareness," "writing psychology," "personal progress," and "general progress." The overall Cronbach's alpha coefficient for the entire scale is .921. Additionally, the coefficients for the sub-factors were .919 for "writing comprehension awareness," .865 for "writing psychology," .884 for "personal progress," and .850 for "general progress" (Şengül, 2013).

Metacognitive Writing Strategy Awareness Scale (MWSAS)

Aydın, İnnalı, and Uyumaz (2017) developed this Likert-type scale with the aim of measuring the metacognitive writing strategy awareness among secondary school students. The scale consisted of 40 items. High levels of reliability were observed, as indicated by the Cronbach's alpha internal coefficients in the two separate groups (AFA and DFA). In the first group, item-total correlations were within the range of 0.410-0.681, while in the second group, these values ranged from 0.386 to 0.627 (Aydın et al., 2017).

Table 1 shows the reliability coefficients obtained from the scales and the rubric used in this study.

Table 1. Reliability Coefficients of Measurement Tools

Scale	Sub-factors	Cronbach's Alpha Reliability Coefficient
Attitude Towards Writing		.978
	Interest	.944
	Perception	.945
	Contribution	.961
Writing Self-Efficacy		.948
	Awareness of writing skills	.936
	The psychology of writing	.797
	Personal progress	.931
	Overall progress	.942
Metacognitive Writing Strategy Awareness		.981
Writing Skill Rubric		.957

As a result of the reliability analyses, the Attitude Towards Writing Scale exhibited a Cronbach's alpha internal consistency coefficient of .978, with the interest sub-factor achieving a score of .944, the perception sub-factor scoring .945, and the contribution sub-factor obtaining an internal consistency coefficient of .961. Additionally, the Writing Self-Efficacy Scale demonstrated a Cronbach's alpha internal consistency coefficient of .948, whereas the writing skill awareness subfactor achieved a score of .936. The writing psychology subfactor had a Cronbach's alpha internal consistency coefficient of .797, the personal progress subfactor reached .931, and the general progress subfactor was .942. Furthermore, the metacognitive writing strategy awareness scale displayed a Cronbach's alpha internal consistency coefficient of .981, and the Writing Skill Rubric obtained a score of .957. Based on these results, it can be concluded that all four measurement tools were perfectly reliable.

Writing Skill Rubric

The researchers utilized the "Writing Skill Rubric," which they developed to assess narrative texts written by students. This rubric, a scoring guide defining specific features and performance criteria across various levels of structured tasks, was employed to assess students' work in alignment with these standards. As per Kan (2007), a rubric serves as a tool for judging performance or products based on established criteria. Rubrics are documents that list what is outlines the criteria considered in any study and provides detailed descriptions of the quality of each criterion, ranging from excellent to poor (Goodrich, 1997). Rubrics comprise three essential components: evaluation criteria, criteria definitions, and scoring strategies (Brookhart, 1999; Popham, 2000). This study follows the rubric creation stages proposed by Andrade (1997) and Kan (2007). An initial relevant literature was reviewed to establish the criteria, definitions, and scoring levels of the rubric. Later draft form of 20 items was formulated and evaluated by eight field experts. Feedback was collected and the draft rubric underwent revisions based on the received input. Validity and reliability studies were conducted, resulting in a finalized rubric consisting of 15 items. The Lawshe technique was employed to ensure content validity of rubric. In this techniqua, it is essential that experts categorized the rubric items as "necessary," "related but unnecessary," or "unnecessary". The formula used in the technique by Lawshe (1975) for evaluation: KGO=(Nu-N/2)N/2 or KGO=[Nu/(N/2)]-1 (CVR: Content Validity Ratio; Nu: Number of Experts Who Approved the İtem; N: Total Number of Experts.).

Ayre and Scally (2014), in their review of Lawshe's research, discovered that a minimum value of .75 was necessary for 8 researchers to establish content validity at a significance level of 0.05. The results concerning the content validity of the Writing Skill Rubric are detailed in Table 2.

Table 2. Content Validity of Writing Skill Rubric

Item	Necessary	Relevant to the structure but unnecessary	Unnecessary	Content validity ratio
1. Determining the writing topic	8	-	-	1.00
2. Finding an appropriate title for the writing topic	8	-	-	1.00
3. Presenting an introduction to the writing piece in accordance with the characteristics of the subject and type	8	-	-	1.00
4. Examining the plot in writing	8	-	-	1.00
5. Narrating events and information by putting them in order/writing without repetition	7	1	-	0.75
6. Addressing the narrator in writing	8	-	-	1.00
7. Eximining the characters in writing	8	-	-	1.00
8. Examining the time in writing	8	-	-	1.00
9. Examining the place in writing	8	-	-	1.00
10. Using appropriate, impressive, original, fluent and creative language in writing	8	-	-	1.00
11. Including richness of expression or vocabulary	7	1	-	0.75
12. Compliance with spelling and punctuation rules	7	1	-	0.75
13. Creating the writing within a plan	8	-	-	1.00
14. Concluding the text with impressive expressions	8	-	-	1.00
15. Organizing the text	7	1	-	0.75

Table 2 displays the rubric items assess for content validity by eight experts. Items 1, 2, 3, 4, 6, 7, 8, 9, 10, 13, and 14 were evaluated necessary for eight experts, resulting in a content validity ratio of 1.00. Conversely, Items 5, 11, 12, and 15 were considered necessary by seven experts and relevant but unnecessary by one expert, yielding a content validity ratio of 0.75. Consequently, the Writing Skill Rubric is affirmed to be content-valid.

The written texts of the students were assessed by three evaluators, including researchers and field experts. The inter-rater reliability was determined using Cramer's V and Cohen's kappa values. According to Cohen (1988), a Cramer's V value ranging from .07 to .21 indicated a small effect size in Chi-square Tests with 2 degrees of freedom, .21 to .35 indicated a medium effect size, and values exceeding .35 indicated a large effect size. The Kappa statistic, ranging from -1 to +1, signified agreement between the raters. κ positive values indicate higher agreement than expected by chance, while κ negative values indicate lower agreement than expected by chance (Von Eye & Mun, 2005). Table 3 presents the inter-rater reliability values for each task in the Writing Skill Rubric.

Table 3. Reliability of Writing Skill Rubric

Item	Cramer's V	Cohen's Kappa
1. Determining the writing topic	.799	.006
2. Finding an appropriate title for the piece of writing	.790	.015
3. Presenting an introduction to the article in accordance with the characteristics of the subject and type	.813	.005
4. Examining the plot in writing	.784	.009
5. Narrating events and information by putting them in order/writing without repetition	.807	.012
6. Addressing the narrator in writing	.827	.009
7. Examining characters in writing	.838	.002
8. Examining the time in writing	.816	.003
9. Examining the place in writing	.852	.001
10. Using appropriate, impressive, original, fluent and creative language in writing	.776	.002
11. Including richness of expression or vocabulary	.811	.001
12. Compliance with spelling and punctuation rules	.722	.002
13. Creating the writing within a plan	.809	.001
14. Concluding the text with impressive expressions	.803	.004
15. Organizing the text	.728	.003

As indicated in Table 3, Cramer's V values for the Writing Skill Rubric range from .722 (lowest) to .852 (highest). This finding suggests the potential for a significant effect size. However, with Cohen's kappa values exceeding 0, it is evident that rater agreement is not influenced by chance, indicating a robust level of agreement.

Research Procedure

In order to collect data for this study, the researchers initially obtained necessary permission from the scale owners, Gazi University Ethical Committee and Ministry of National Education to conduct the study. After obtaining the necessary permissions, three schools were visited on three different days, the administrators and teachers of the schools were interviewed and informed about the study. As a result of the interviews with school administrators and teachers, a 5-week work plan was created by determining the classes and days of implementation in each school. According to this plan, in the first week, a student from each school with different reading speed and academic success was selected and the scales were applied to these students in the first week to determine the reading time of the scales and the comprehensibility of the scale items. These 3 studensts did not take part in actual implementation. Following the pre-application phase, students from each school filled out the Demographic Information Form, and Attitude Towards Writing Scale in the second lesson, the Writing Self-Efficacy Scale in the third lesson, and the Metacognitive Writing Strategies Awareness Scale were implemented in the fourth lesson. In the fifth phase of the application process, students were instructed to compose narrative text. To guide them in selecting topics, researchers curated a pool of four options for each of the eight themes outlined in the Turkish course curriculum (2019). These topics were reviewed and refined based on feedback from experts. Consequently, 16 options, comprising two topics per theme, were offered to the students. Moreover, the students were given the opportunity to write stories on topics beyond the options provided. In consultation with teachers, it was determined that dedicating one class hour to story writing would be adequate. Thus, the data were collected in five weeks: a pre-application, three scales and a narrative text. Data collection was conducted collaboratively by researchers and course teachers. This entire data-gathering process extended over 1.5 months. Initially, data were collected from 298 students. However, this number reduced to 265 after eliminating forms from students who either left some scales blank, provided incomplete or inaccurate coding, or did not fill in one or more forms. Consequently, the study was ultimately analyzed using data collected from 265 participants.

Data Analysis

The data were analyzed using Microsoft Excel Office software and the statistical software package Statistical Package for Social Sciences (SPSS) 26.0. Descriptive statistics were used to delineate the characteristics of study variables. The Pearson Product-Moment Correlation Coefficient (PPMCC) was used to investigate the relationships between the study variables. To ascertain the predictive impact of the independent variables on the dependent variables, both Simple Linear Regression Analysis and Multiple Linear Regression Analysis were conducted. Prior to data analysis, an evaluation was performed to ensure that the assumptions underlying the Pearson Product-Moment Correlation Coefficient (PPMCC) and regression analysis were met. In this regard, the test results for assessing parametric test assumptions, such as normal distribution and homogeneity of variances, were examined. Upon examination, the variable scores exhibited a normal distribution.

Results

Descriptive Statistics and Correlation

In this study, the researchers analyzed the study variables by using descriptive statistics. Specifically, researchers examined the participants' scores from the measurement tools, investigating metrics such as the mean, standard deviation, minimum and maximum values, kurtosis, and skewness values.

Table 4. Descriptive Statistics Regarding the Study Variables

Measurement tools	N	Mean	Sd.	Min.	Max.	S	K
Writing self-efficacy	265	3.27	.773	1.23	4.55	-.470	-.513
Writing attitude	265	3.03	1.09	1.13	4.96	.107	-1.184
Metacognitive writing strategy awareness	265	3.29	.690	1.02	4.93	-.513	-.566
Writing skill rubric	265	2.61	.690	1.07	4.00	-.106	-.298

S: skewness; K: kurtosis; Min: minimum; Max: maximum

Table 4 displays the participants' responses to the scales. The mean scores for the Attitude Towards Writing Scale, Writing Self-Efficacy Scale, Metacognitive Writing Strategy Awareness Scale, and Writing Skill Rubric were 3.03 (range:1.13-4.96), 3.27 (range:1.23-4.55), 3.29 (range:1.02-4.93), and 2.65 (range:1.07-4.00), respectively. Normality tests rely on skewness and kurtosis values that fall within the range of -2 to +2, indicating a normal distribution. In this study, the skewness and kurtosis values for the aforementioned scales were within this range, confirming normality and allowing the use of parametric tests, as shown in Table 4.

The Relationship between Attitude, Self-Efficacy, Metacognitive Writing Strategy Awareness and Writing Skills

The relationships among the variables under investigation were analyzed using the Pearson product-moment correlation coefficient.

Table 5. Correlations Related to Research Variables

Measurement tools	1	2	3	4
1. Self-efficiacy	1	.793**	.974**	.847**
2. Attitude	.793**	1	.791**	.889**
3. Metacognitive writing strategy awareness	.974**	.791**	1	.827**
4. Writing skill	.847**	.889**	.827**	1

**The correlation is significant at 0.01 level.

As indicated in Table 5, students' writing skills demonstrated a positive correlation with their writing attitude (.889, $p<.05$), self-efficacy (.847, $p<.05$), and awareness of metacognitive writing strategies (.827, $p<.05$). Students' attitude towards writing is positively associated with metacognitive writing strategy awareness (.791, $p<.05$). Additionally, a significant positive relationship exists between

students' writing self-efficacy and their writing attitude (.793, p<.05) and metacognitive writing strategy awareness (.974, p<.05). Consequently, there is a noteworthy and positive connection between students' writing skills and the study variables, namely attitude, self-efficacy, and metacognitive writing strategy awareness. In simpler terms, all four variables (writing skill, attitude, self-efficacy, and metacognitive writing strategy awareness) are mutually positively linked.

The Role of Attitude, Self-Efficacy and Metacognitive Writing Strategy Awareness in Explaining Students' Writing Skills

Table 6 presents the results of the simple linear regression analyses aimed at explaining the role of attitude, self-efficacy, and metacognitive writing strategy awareness on writing skill.

Table 6. Simple Linear Regression Analysis Results for Predicting Writing Skills

Modal	Non-Standard Coefficients		Standard Coefficients	t	p	R^2
	B	Std. Error	Beta			
Writing self-efficacy	.756	.029	.847	25.860	.000	.717
Writing attitude	.558	.018	.889	31.459	.000	.789
Metacognitive writing strategy awareness	.572	.024	.827	23.855	.000	.683

Dependent variable: Writing skill

According to the findings, attitude contributed 78.9% of the variance in writing skills (p<.05; R^2= .789), self-efficacy explained 71.7% of the variance (p<.05; R^2= .717), and metacognitive writing strategy awareness accounted for 68.3% of the variance (p<.05; R^2= .683). These results indicate that a one-unit increase in attitude led to a .889 increase in students' writing performance, a one-unit increase in self-efficacy resulted in a .847 improvement, and a one-unit increase in awareness of metacognitive writing strategies led to a .827 enhancement in writing skill. Table 7 below presents the results of multiple regression analysis to predict writing skills.

Table 7. Multiple Regression Analysis Results for Predicting Writing Skill

Modal	Non-Standard Coefficients		Standard Coefficients	t	p	R^2
	B	Std. Error	Beta			
Writing self-efficacy	.493	.095	.553	5.051	.000	
Writing attitude	.373	.025	.593	14.768	.000	.844
Metacognitive writing strategy awareness	-.125	.075	-.181	-1.662	.098	

Dependent variable: Writing skill

According to multiple regression model to explain the role of attitude, self-efficacy, and metacognitive strategy awareness on students' writing skills that attitude (.593, p<.05), and self-efficacy (.553, p<.05) were significant predictors of writing skill, whereas metacognitive strategy awareness (-.181, p>.05) was not. Writing attitude and writing self-efficacy together explained 84.4% of the R^2 value for writing skills. Specifically, a one-unit increase in students' writing attitude led to a .593 increase in narrative text writing performance, while a one-unit increase in writing self-efficacy resulted in an .553 increase. Thus, students' attitude towards writing was the most influential factor in their success in writing skills, followed by their writing self-efficacy.

Diccussion and Conclusion

In this study aimed to analyze writing skill with a focus on factors such as attitude, self-efficacy, and metacognitive strategy awareness. The study's results revealed that attitude and self-efficacy predict students writing skills, whereas metacognitive strategy awareness does not. Among these factors, it is evident that the most effective factor for students' writing skills is writing attitude, followed by self-efficacy.

One of the results of this study was that students' attitudes towards writing predicted their writing skill. In other words attitude is the most crucial factor influencing students' writing skills. Research has indicated that attitude plays a significant role in determining the quality of the writing process (Tunagür, 2020). Additionally, research conducted have demonstrated a moderate correlation between students' attitudes towards writing and their writing performance, from primary school to high school (Camacho, Alves, & Boscolo, 2021; Graham, Daley, Aitken, Harris, & Robinson, 2018; Rocha, Filipe, Magalhães, Graham, & Limpo, 2019). It has been found that positive attitude towards writing can predict the quality of the written work (Rocha et al., 2019). In the literature, there are studies suggesting that the more students like writing, in other words, the more they develop a positive attitude towards writing, the better their texts will be (Graham & Harris, 2019; McKenna et al., 1995). Furthermore, developing a sense of positivite towards this skill enhances effective engagement (Isen, 1999), and demands fewer cognitive resources, which can then be used for writing tasks (Coffey, 2020). Students who have positive attitudes towards writing exhibit greater effort and produce more written content than their peers with less positive attitudes (Mazeh & Moukarzel, 2018). Students who develop a positive attitude towards writing engage in the writing activity without the burden of anxiety about their achievements. Conversely, a student developing negative attitude towards writing is likely to avoid writing tasks driven by the fear of potential failure (Bruning & Horn, 2000). Consequently, a negative attitude towards writing can hinder the effectiveness of the writing process. This can be particularly detrimental, since writing is a challenging task that demands substantial effort and the efficient utilization of various cognitive sources (Graham, 2006). Hence, the findings of this study align with those of previous research in this field. Similarly, this investigation concluded that students with positive attitude towards writing exhibited higher levels of success. This outcome is expected because students who like writing actively seek the prerequisites for effective writing and invest more effort into better writing. However, the way students attitude reading and writing greatly varies based on the literacy environment they experience in preschool.

Moreover, the quality of a child's surroundings plays a pivotal part in shaping their attitudes towards reading and writing (Cunningham, 2008). In his study, Baştuğ (2015) found that writing attitude and writing disposition significantly and positively affect writing success. When the literature is examined, it is seen that there are studies reveal that developing positive attitudes towards writing positively affects the development of writing skills, as well as studies reveal that developing negative attitudes towards writing skills negatively affects the development of writing skills. For example, Susar Kırmızı (2009) attributes the deficiencies in students' writing success to their negative attitudes towards writing. Research indicates that students' attitudes for writing tends to negativity as they progress to higher grade levels. This negativity is attributed to the realization that proficient writing demands significant effort, coupled with negative feedback on writing tasks and feelings of boredom (Kear et al., 2000). At this point, students should be supported to develop positive attitudes towards writing through different and interesting writing activities. Among the reasons for developing negative attitudes towards writing skills in educational contexts, students' negative experiences with written expressions, along with insufficient feedback to enhance their writing skills, can lead to negative attitudes towards writing over time (Karatay, 2011). Although there have been studies in the current literature examining the impact of writing attitudes on writing skill, many of these studies are cross-sectional and do not explain the relationship with other motivational factors, such as self-efficacy. Therefore, it is crucial to conduct practical studies addressing the relationship between language skills like writing which is difficult to acquire, and attitudes towards writing, and that will also develop positive attitudes towards writing for students.

According to the study results self-efficacy is another variable that significantly influences writing skills. In parallel with the results of this study, the relationship between writing skills and self-efficacy has attracted the attention of researchers. Both theoretical and practical investigations on this topic consistently demonstrate a positive correlation between writing skills and self-efficacy (McCarthy et al., 1985; Pajares & Johnson, 1994, 1996; Pajares et al., 1999; Pajares & Valiante, 1997, 1999, 2001; Rankin et al., 1994; Schunk & Swartz, 1993; Shell et al., 1995; Shell et al., 1989; Zimmerman & Bandura, 1994). Therefore, this relationship was confirmed in the present study and similar findings were obtained with the literature. This result is not surprising as students with high self-efficacy in writing are undeniably more capable of expressing their feelings and thoughts with more comfortable, efficient, and precision. Various studies have examined the impact of self-efficacy on academic achievement (Bandura, 1997, 1982; Bandura & Schunk, 1981; Conley & French, 2014; Covington & Beery, 1976; Harter, 1978; Schunk, 1981, 1984; Weiner, 1979). It is widely expected that students with higher self-efficacy will exhibit superior writing performance. Pajares and Valiante (1997) stated that the difference in academic achievement of students with the same abilities can be explained by their self-efficacy. In contrast to students who harbor doubts about their capacity to learn, those who have strong self-efficacy in acquiring a skill or executing a task tend to exhibit increased participation, sustained effort, and resilience in the face of challenges, resulting in higher achievement levels (Shunk & Zimmerman, 2007). In their study, Taş and Balcı (2019) found that students with high writing self-efficacy perception had more developed story writing skills. Chen and Lin (2009) and Hetthong and Teo (2013) also found that there is a positive relationship between writing self-efficacy and writing skills. Research has shown that students' achievement expectations significantly influence their behavior (Bandura, 1982; Covington & Beery, 1976; Harter, 1978; Weiner, 1979). When students perceive themselves as capable writers, they can easily navigate each stage of the writing process. Consequently, there is a need for diverse and comprehensive studies to explore the connection between writing self-efficacy and writing skills. Conducting studies to enhance writing self-efficacy will foster the development of this skill. In summary, self-efficacy profoundly affects students' performance in text writing.

This study also examined the effect of metacognitive strategy awareness on writing skill. However, the findings indicated that students' awareness of metacognitive writing strategies did not predict their writing ability. This result suggests that it is essential for students to develop higher-order thinking skills to effectively comprehend metacognitive strategy awareness. Pitenoee, Modaberi, and Ardestani (2017) stated in their research that metacognitive strategies influence writing skill quality due to their requirement for higher-order thinking abilities. Another factor influencing this result might be the complexity of writing skills compared to other language skills, which makes it challenging to gain. Therefore, even if students use strategies, they may have had struggle to express them correctly in their assessments. Additionally, research indicates that students often lack sufficient awareness of their metacognitive processes in writing skills (Ramadhanti & Yanda, 2021), which could be attributed to inadequate strategy training for writing. For example, in this study, when students were asked to write a narrative text, the majority of them in all three participating schools confessed to not knowing what the narrative text was or how to compose it, as they had never attempted such writing before. However, the Turkish Course Curriculum (MoNE, 2019) expects students to start writing narrative texts from the 3rd grade, therefore, they should be subjected to such training within the scope of writing skills. Another study revealed that many students are unaware concept of metacognition, meaning they were unfamiliar with thinking and learning strategies and how to develop them (Hartman, 2001). As stated by Negretti (2009), metacognitive awareness plays a crucial role in improving writing strategies and personal writing processes. Lv and Chen (2010) found that training in metacognitive writing strategies positively affected writing skills. There are data (Mastan & Maarof, 2014; Topuzkanamış, 2014) that teaching writing strategies is effective in writing skills and that using strategies positively affects writing skills. Similarly, Ward's (2009) study demonstrated that a teaching based on metacognitive learning strategies affected students' writing achievement and metacognitive strategy use was linked to writing skills. Many studies have consistently indicated that using metacognitive strategies enhances writing quality (Flavell, 1979; Harris et al., 2010; Negretti, 2012; Schraw, 1998; Todd, 2002; Zimmerman, 1995;

Wenden, 1991). Consequently, metacognitive strategy training should be provided to develop writing skills. Therefore, further studies in this field are essential. Students need systematic instruction in planning, drafting, revising, and editing strategies when involving difficult writing tasks. Moreover, regular metacognitive instruction is also needed to help students understand their own learning process, especially when using more advanced strategies (Sitko, 1998). Therefore, research should be conducted on enhancing students' awareness of metacognition in writing skills and providing them with metacognitive strategy training.

In this study, the researchers examined the role of attitude, self-efficacy and metacognitive strategy use awareness in predicting writing skills based on the literature. The results from the correlation and regression analyses showed that students' writing skills were positively associated with attitude, self-efficacy, and metacognitive strategy usage in writing; self-efficacy, and attitude were found to be predictors of writing skills, while awareness of metacognitive strategy use did not have predictive value for writing skills.

Suggestions

Based on the results of the study, suggestions for future research can be listed as follows:

- Similar studies can be conducted at different grade levels of secondary school, different schools, socioeconomik, and level of education.
- Similar studies can be conducted with different variables that may affect writing skills, other cognitive and motivational factors that affect writing skills.
- Similar to this study conducted within the scope of mother tongue education can also be conducted in the field of foreign language teaching.
- Based on the results of this study, applied studies can be conducted on students' attitudes towards writing, self-efficacy beliefs and metacognitive strategy awareness.
- One of the results of the study is that metacognitive strategy awareness does not predict students' writing skills. Training on metacognitive strategy awareness can be given to students after the prerequisites are met.

Acknowledgements

We thank the anonymous reviewers and the editor for their comments on our manuscript.

References

Alamargot, D., & Chanquoy, L. (2001). *Through the models of writing* (9th ed.). Dordrecht-Boston-London: Kluwer Academic Publishers.

Anderman, E. M., & Wolters, C. A. (2006). Goals, values, and affect: Influences on student motivation. In P. A. Alexander & P. H. Winne (Eds.), *Handbook of educational psychology* (pp. 369-389). Hillsdale, NJ: Lawrence Erlbaum Associates.

Andrade, H. G. (1997). Understanding rubrics. *Educational Leadership, 54*(4), 14-17.

Arı, G. (2010). Evaluation of the narrative texts of sixth and seventh grades students. *TÜBAR*, XXVII, 43-75.

Arıcı, A. F., & Ungan, S. (2012). *Written expression handbook.* Ankara: Pegem.

Aydın, İ. S., İnnalı, H. Ö., & Uyumaz, G. (2017). Developing metacognitional writing strategies awareness scale and determining psychometric characteristics. *International Periodical fort he Languages, Literature and History of Turkish or Tukic, 12*(25), 169-192. doi:10.7827/TurkishStudies.12198

Ayre, C., & Scally, A. J. (2014). Critical values for Lawshe's content validity ratio: Revisiting the original methods of calculation. *Measurement and Evaluation in Counseling and Development*, *47*(1), 79-86. doi:10.1177/0748175613513808

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215. doi:10.1037/0033-295X.84.2.191

Bandura, A. (1981). Self-referent thought: A developmental analysis of self-efficacy. In J. H. Flavell & L. Ross (Eds.), *Social cognitive development: Frontiers and possible futures* (pp. 200-239). Cambridge: Cambridge University Press.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*(2), 122-147. doi:10.1037/0003-066X.37.2.122

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1989). Regulation of cognitive processes through perceived self-efficacy. *Developmental Psychology, 25*(5), 729-375. doi:10.1037/0012-1649.25.5.729

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: Freeman.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology,* 52, 1-26. doi:10.1146/annurev.psych.52.1.1

Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology, 41*(3), 586-598. doi:10.1037/0022-3514.41.3.586

Baştuğ, M. (2015). İlkokul 4. sınıf öğrencilerinin yazma eğilimi, tutumu ve yazma tutukluğunun yazma başarısı üzerindeki etkisi. *Eğitim ve Bilim, 40*(180), 73-88. doi:10.15390/EB.2015.4279

Bazerman, C. (2016). What do socio-cultural studies of writing tell us about learning to write?. In C. A. MacArthur, S. Graham, & J. Fitzgerald. (Eds.), *Handbook of writing research* (2nd ed., pp. 11-23). New York: Guilford Press.

Berman, R. A. (2004). Between emergence and mastery: The long developmental route of language acquisition. In R. A. Berman (Ed.), *Language development across childhood and adolescence* (pp. 9-34). Amsterdam: John Benjamins.

Britton, B. K., & Pelligrini, A. D. (1990). *Narrative thought and narrative language.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Brookhart, S. M. (1999). *The art and science of classroom assessment: The missing part of pedagogy.* Ashe-Eric Higher Education Report 27(1). The George Washington University, Graduate School of Education and Human Development. Washington.

Brown, A., Bransford, J. D., Ferrara, R., & Campione, J. C. (1983). Learning, remembering, and understanding. In J. H. Flavell & E. M. Markham (Eds.), *Carmichael's manual of child psychology* (pp. 77-166). New York: Wiley.

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

Camacho, A., Alves, R. A., & Boscolo, P. (2021). Relations among motivation, behaviour, and performance in writing: A multiple-group structural equation modeling study. *British Journal of Educational Psychology, 91*(4), 1456-1480. doi:10.1111/bjep.12430

Can, E., & Topçuoğlu Ünal, F. (2017). Attitude scale towards writing for secondary school students: The study of validity and reliability. *International Journal of Languages' Education and Teaching, 5*(3), 203-212. doi:10.18298/ijlet.2026

Chen, M. C., & Lin, H. J. (2009). Self-efficacy, foreign language anxiety as predictors of academic performance among professional program students in a general English proficiency writing test. *Perceptual and Motor Skills, 109*(2), 420-430. doi:10.2466/PMS.109.2.420-430.

Coffey, J. K. (2020). Cascades of infant happiness: Infant positive affect predicts childhood IQ and adult educational attainment. *Emotion, 20*(7), 1255-1265. doi:10.1037/emo0000640

Cohen, J. (1988). *Statistical power analysis fort he behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Conley, D. T., & French, E. M. (2014). Student ownership of learning as a key component of college readiness. *American Behavioral Scientist, 58*(8), 1018-1034. doi:10.1177/0002764213515232

Covington, M. V., & Beery, R. G. (1976). *Self-worth and school learning.* New York: Holt, Rinehart & Winston.

Creswell, J. W. (2017). *Research design, quantitative, quantitative, and mixed methods approaches* (3rd ed., S. B. Demir, Ed. & Trans.). Ankara: Eğiten Kitap.

Cunningham, D. D. (2008). Literacy environment quality in preschool and children's attitudes toward reading and writing. *Literacy, Teaching and Learning, 12*(2), 19-36.

Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. New York: Harcourt, Brace, & Jovanovich.

Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology, 53*(1), 109-132.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Boston: Addison-Wesley

Flavell, J. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist, 34*(10), 906-911. doi:10.1037/0003-066X.34.10.906

Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. *College Composition & Communication, 32*(4), 365-387. doi:10.2307/356600

Flower, L., & Hayes, J. R. (1984). Images, plans, and prose: The representation of meaning in writing. *Written Communication, 1*(1), 120-160. doi:10.1177/0741088384001001

Goctu, R. (2017). Metacognitive strategies in academic writing**.** *Journal of Education in Black Sea Region, 2*(2), 82-96. doi:10.31578/jebs.v2i2.44

Goodrich, H. (1997). Understanding rubrics. *Educational Leadership*, 54, 14-17.

Graesser, A. C., Singer, M., & Trabasso, T. (1994). Constructing inferences during narrative text comprehension. *Psychological Review, 101*(3), 371-395. doi:10.1037/0033-295X.101.3.371

Graham, S. (2006). Writing. In P. Alexander & P. Winne (Eds.), *Handbook of educational psychology* (pp. 457-478). Hillsdale, NJ: Lawrence Erlbaum Associates.

Graham, S., Berninger, V. W., & Fan, W. (2007). Structural relationship between writing attitude and writing achievement in first- and third-grade students. *Contemporary Educational Psychology, 32*(3), 516-536. doi:10.1016/j.cedpsych.2007.01.002

Graham, S., Daley, S. G., Aitken, A. A., Harris, K. R., & Robinson, K. H. (2018). Does motivational beliefs predict middle school students' writing performance?. *Journal of Research in Reading, 41*(4), 642-656. doi:10.1111/1467-9817.12245

Graham, S., & Harris, K. (2019). Evidence-based practices in writing. In S. Graham, C. A. MacArthur, & M. Hebert (Eds.), *Best practices in writing instruction* (3th ed., pp. 3-28). New York: Guilford Publications.

Graham, S., & Perin, D. (2007). *Writing next: Effective strategies to improve writing of adolescents in middle and high school*. New York: Alliance.

Hammill, D. (2004). What we know about correlates of reading. *Exceptional Children, 70*(4), 453-468. doi:10.1177/001440290407000405

Harris, K. R., Santangelo, T., & Graham, S. (2010). Metacognition and strategies instruction in writing. In H. S. Waters & W. Scheneider (Eds.), *Metacognition, strategy use, and instruction* (pp. 226-256). New York: The Guilford Press.

Harter, S. (1978). Effectance motivation reconsidered: Toward a developmental model. *Human Development, 21*(1), 34-64. doi:10.1159/000271574

Hartman, H. J. (2001). Developing students' metacognitive knowledge and skills. In H. J. Hartman (Ed.), *Metacognition in learning and instruction: Theory, research and practice* (pp. 33-68). Dodrecht, The Netherlands: Kluwer.

Hayes, J. R. (1996). A new framework for understanding cognition and affect in writing. In C. M. Levy & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences, and applications* (pp. 1-27). Hillsdale, NJ: Lawrence Erlbaum Associates.

Hayes, J. R., & Flower, L. S. (1980). Identifying the organization of writing processes. In L. W. Gregg & E. R. Steinberg (Eds.), *Cognitive processes in writing* (pp. 3-30). Hillsdale, NJ: Lawrence Erlbaum Associates.

Herrick, V. E., & Otto, W. (1961). Pressure on point and barrel of a writing tool. *The Journal of Experimental Education, 30*(2), 215-230. doi:10.1080/00220973.1961.11010709

Hetthong, R., & Teo, A. (2013). Does writing self-efficacy correlate with and predict writing performance?. *International Journal of Applied Linguistics & English Literature, 2*(1), 157-166. doi:10.7575/ijalel.v.2n.1p.157

Hidi, S., & Boscolo, P. (2006). Motivation and writing. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 144-157). New York: Guilford.

Hidi, S., & McLaren, J. A. (1991). Motivational factors and writing: The role of topic interestingness. *European Journal of Psychology of Education, 6*(2), 187-197. doi:10.1007/BF03191937

Isen, A. M. (1999). Positive affect. In T. Dalgleish & M. J. Power (Eds.), *Handbook of cognition and emotion* (pp. 521-539). John Wiley & Sons. doi:10.1002/ 0470013494.ch25.

Kan, A. (2007). Performans değerlendirme sürecine katkıları açısından yeni program anlayışı içerisinde kullanılabilecek bir değerlendirme yaklaşımı: Rubrik puanlama yönergeleri. *Kuram ve Uygulamada Eğitim Bilimleri, 7*(1), 144-152.

Karatay, H. (2011). Süreç temelli yazma modelleri: Planlı yazma ve değerlendirme. In M. Özbay (Ed.), *Yazma eğitimi* (pp. 21-40). Ankara: Pegem Akademi Yayıncılık.

Kear, D., Coffman, G., McKenna, M., & Ambrosio A. (2000). Measuring attitude toward writing: A new tool for teachers. *Reading Teacher, 54*(1), 10-23.

Kellogg, R. T. (1996). A model of working memory in writing. In C. M. Levy & S. E. Ransdell (Eds.), *The science of writing: Theo- ries, methods, individual differences, and applications* (pp. 57-71). Mahwah, NJ: Lawrence Erlbaum Associates.

Kellogg, R. T. (2001). Long-term working memory in text production. *Memory & Cognition*, 29, 43-52. doi:10.3758/bf03195739.

Kellogg, R. T., & Raulerson, B. A. (2007). Improving the writing skills of college students. *Psychonomic Bulletin & Review, 14*(2), 237-242. doi:10.3758/BF03194058

Klassen, R. (2002). Writing in early adolescence: A review of the role of self-efficacy beliefs. *Educational Psychology Review, 14*(2), 173-203. doi:10.1023/A:1014626805572

Knudson, R. E. (1991). Development and use of a writing attitude survey in grades 4 to 8. *Psychological Report, 68*(3), 807-816. doi:10.2466/pr0.1991.68.3.807

Knudson, R. E. (1992). Development and application of a writing attitude survey for grades 1 to 3. *Psychological Reports, 70*(3), 711-720. doi:10.2466/PR0.70.3.711-720

Knudson, R. E. (1993). Development and use of a writing attitude survey in grades 4 to 8. *Psychological Reports, 72*(1), 39-45. doi:10.2466/pr0.1993.72.1.39

Knudson, R. E. (1995). Writing experiences, attitudes, and achievement of first to sixth graders. *Journal of Educational Research, 89*(2), 90-97. doi:10.1080/00220671.1995.9941199

Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology, 28*(4), 563-575. doi:10.1111/j.1744-6570.1975.tb01393.x

Lv, F., & Chen, H. (2010). A study of metacognitive-strategies-based writing instruction for vocational college students. *English Language Teaching, 3*(3), 136-144. doi:10.5539/elt.v3n3p136

Mastan, M. E., & Maarof, N. (2014). ESL learners' self-efficacy beliefs and strategy use in expository writing. *Procedia-Social and Behavioral Sciences,* 116, 2360-2363. doi:10.1016/j.sbspro.2014.01.573

Mathewson, G. (1994). Model of attitude influence upon reading and learning to read. In R. Ruddell, M. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (pp. 1131-1161). Newark, DE: International Reading Association.

Mazeh, N., & Moukarzel, D. (2018). Relationship between writing self-efficacy and writing attitude in Lebanese elementary schools. *Journal of Education and Practice, 9*(24), 103-108.

McCarthy, P., Meier, S., & Rinderer, R. (1985). Self-efficacy and writing: A different view of self-evaluation. *College Composition and Communication, 36*(4), 465-471. doi:10.2307/357865

McKenna, M. C., Kear, D. J., & Ellsworth (1995). Children's attitudes toward reading: A national survey. *Reading Research Quarterly, 30*(4), 934-956. doi:10.2307/748205

Ministry of National Education. (2019). *The Turkish course curriculum (primary and secondary school 1, 2, 3, 4, 5, 6, 7 and 8 grades)*. Ankara: Talim ve Terbiye Kurulu Başkanlığı.

Negretti, R. (2009). *Metacognitive awareness in developmental writing students* (Doctoral dissertation). The University of Hawaii at Manoa, Hawaii.

Negretti, R. (2012). Metacognition in student academic writing: A longitudinal study of metacognitive awareness and its relation to task perception, self-regulation, and evaluation of performance. *Written Communication, 29*(2), 142-179. doi:10.1177%2F0741088312438529

Nelson, K. (1986). *Event knowledge: Structure and function in development.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Nelson, N. (2007). Why write? A consideration of rhetorical purpose. In P. Boscolo & S. Hidi (Eds.), *Writing and motivation* (pp. 17-30). Oxford: Elsevier. doi:10.1163/9781849508216_003

Onan, B. (2015). An analysis study on basic language skills in regard to the relationship of deep structure and surface structure. *Ana Dili Eğitimi Dergisi, 3*(3), 91-110. doi:10.16916/aded.50911

Pajares, F. (2007). Empirical properties of a scale to assess writing self-efficacy in school contexts. *Measurement and Evaluation in Counseling and Development, 39*(4), 239-249. doi:10.1080/07481756.2007.11909801

Pajares, F., & Johnson, M. J. (1994). Confidence and competence in writing: The role of writing self-efficacy, outcome expectancy, and apprehension. *Research in the Teaching of English, 28*(3), 313-331.

Pajares, F., & Johnson, M. J. (1996). Self-efficacy beliefs in the writing of high school students: A path analysis. *Psychology in the Schools, 33*(2), 163-175. doi:10.1002/(SICI)1520-6807(199604)33:2<163::AID-PITS10>3.0.CO;2-C

Pajares, F., Miller, M. D., & Johnson, M. J. (1999). Gender differences in writing self-beliefs of elementary school students. *Journal of Educational Psychology, 91*(1), 50-61. doi:10.1037/0022-0663.91.1.50

Pajares, F., & Valiante, G. (1997). Influence of self-efficacy on elementary students' writing. *The Journal of Educational Research, 90*(6), 353-360. doi:10.1080/00220671.1997.10544593

Pajares, F., & Valiante, G. (1999). Grade level and gender differences in the writing self-beliefs of middle school students. *Contemporary Educational Psychology, 24*(4), 390-405. doi:0.1006/ceps.1998.0995

Pajares, F., & Valiante, G. (2001). Gender differences in writing motivation and achievement of middle school students: A function of gender orientation?. *Contemporary Educational Psychology, 26*(3), 366-381. doi:10.1006/ceps.2000

Perin, D., Lauterbach, M., Raufman, J., & Kalamkarian, H. S. (2017). Text-based writing of low-skilled postsecondary students: Relation to comprehension, self-efficacy and teacher judgments. *Reading and Writing, 30*(4), 887-915.

Pintrich, P. R. (1999). The role of motivation in promoting and sustaining self-regulated learning. *International Journal of Educational Research*, *31*(6), 459-470. doi:10.1016/S0883-0355(99)00015-4

Pitenoee, M. R., Modaberi, A., & Ardestani, E. M. (2017). The effect of cognitive and metacognitive writing strategies on content of the Iranian intermediate EFL learners' writing. *Journal of Language Teaching and Research*, *8*(3), 594-600. doi:10.17507/jltr.0803.19

Popham, W. J. (2000). *Modern educational measurement: Practical guidelines for educational leaders*. Boston: Allyn and Bacon.

Ramadhanti, D., & Yanda, D. P. (2021). Students' metacognitive awareness and its impact on writing skill. *International Journal of Language Education, 5*(3), 193-206. doi:10.26858/ijole.v5i3.18978

Rankin, J. L., Bruning, R. H., & Timme, V. L. (1994). The development of beliefs about spelling and their relationship to spelling performance. *Applied Cognitive Psychology, 8*(3), 213-232. doi:10.1002/acp.2350080303

Rocha, R. S., Filipe, M., Magalhães, S., Graham, S., & Limpo, T. (2019). Reasons to write in grade 6 and their association with writing quality. *Frontiers in Psychology,* 10, 21-57. doi:10.3389/fpsyg.2019.02157

Schraw, G. (1998). Promoting general metacognitive awareness. *Instructional Science*, *26*(1), 113-125. doi:10.1023/A:1003044231033

Schunk, D. H. (1981). Modeling and attributional effects on children's achievement; A self-efficacy analysis. *Journal of Educational Psychology, 73*(1), 93-105. doi:10.1037/0022-0663.73.1.93

Schunk, D. H. (1984). Self-efficacy perspective on achievement behavior. *Educational Psychologist, 19*(1), 48-58. doi:10.1080/00461528409529281

Schunk, D. H. (1989a). Self-efficacy and cognitive achievement: Implications for students with learning problems. *Journal of Learning Disabilities, 22*(1), 14-22. doi:10.1177/002221948902200103

Schunk, D. H. (1989b). Self-efficacy and cognitive skill learning. In C. Ames & R. Ames (Eds.), *Research on motivation in education: Goals and cognitions* (3th ed., pp. 13-44). San Diego, CA: Academic.

Schunk, D. H., & Swartz, C. W. (1993). Goals and progress feedback: Effects on self-efficacy and writing achievement. *Contemporary Educational Psychology, 18*(3), 337-354. doi:10.1006/ceps.1993.1024

Schunk, D. H., & Zimmerman, B. J. (2007). Influencing children's self- efficacy and self-regulation of reading and writing through modeling, *Reading & Writing Quarterly, 23*(1), 7-25. doi:10.1080/10573560600837578

Sitko, B. M. (1998). Knowing how to write: metacognition and writing instruction. In Hacker, D. J., Dunlosky, J., & Graesser, A. C. (Eds.), *Metacognition in educational theory and practice* (pp. 93-116). Hillsdale, NJ: Lawrence Erlbaum Associates.

Shell, D., Colvin, C., & Bruning, R. (1995). Developmental and ability differences in self-efficacy, causal attribution, and outcome expectancy mechanisms in reading and writing achievement. *Journal of Educational Psychology, 87*(3), 386-398. doi:10.1037/0022-0663.87.3.386

Shell, D., Murphy, C., & Bruning, R. (1989). Self-efficacy and outcome expectancy mechanisms in reading and writing achievement. *Journal of Educational Psychology, 81*(1), 91-100. doi:10.1037/0022-0663.81.1.91

Susar Kırmızı, F. (2009). Türkçe dersinde yaratıcı drama yöntemine dayalı yaratıcı yazma çalışmalarının yazmaya yönelik tutuma etkisi. *Yaratıcı Drama Dergisi, 4*(7), 51-67.

Şengül, M. (2013). Validation of writing self-efficacies scale for secondary school students. *Türkiye Sosyal Araştırmalar Dergisi*, *171*, 81-94.

Taş, H., & Balcı, A. (2019). 8. sınıf öğrencilerinin yazma öz yeterlilik algıları ile öykü yazma becerileri üzerine bir araştırma. *Okuma Yazma Eğitimi Araştırmaları, 7*(1), 51-70. doi:10.35233/oyea.579984

Tavşanlı, Ö. F., Bilgin, A., Yıldırım, K. Rasinski, T., & Tschantz, B. (2020). The effect of a PBWMIP on writing success and attitude toward writing. *Reading & Writing Quarterly, 37*(5), 425-443. doi:10.1080/10573569.2020.1846006

Todd, R. (2002). Using self-assessment for evaluation. *English Teaching Forum*, *40*(1), 16-19.

Tolchinsky, L. (2016). From text to language and back again: The emergence of written language. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (2nd ed., pp. 144-159). New York: Guilford Press.

Topuzkanamış, E. (2014). Yazma stratejileri öğretiminin Türkçe öğretmenliği birinci sınıf öğrencilerinin yazma başarısına etkisi. *Uluslararası Türkçe Edebiyat Kültür Eğitim (TEKE) Dergisi, 3*(2), 274- 290.

Troia, G., Shankland, R., & Wolbers, K. (2012). Motivation research in writing: Theoretical and empirical considerations. *Reading and Writing Quarterly, 28*(1), 5-28. doi:10.1080/10573569.2012.632729

Tunagür, M. (2020). *The effect of writimg activities based upon metacognitive strategies to writing skills of informative texts, attitudes and metacognitive awareness in writing: A mixed method study* (Unpublished doctoral dissertation). Atatürk University, Erzurum.

Uyar, Y. (2016). Research on development of writing skills: Review of last quarter century. *Turkish Studies, 11*(3), 2273-2294. doi:10.7827/TurkishStudies.9479

Von Eye, A., & Mun, E. Y. (2005). *Analyzing rater agreement: Manifest variable methods.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Ward, N., B. (2009). *The influence of a metacognitive learning system on the writing achievement of elementary school students* (Doctoral dissertation). Seton Hall University, New Jersey.

Weiner, B. (1979). A theory of motivation for some classroom experiences. *Journal of Educational Psychology, 71*(1), 3-25. doi:10.1037/0022-0663.71.1.3

Wenden, A. L. (1991). Metacognitive strategies in L2 writing: A case for task knowledge. In A. James (Ed.)., *Linguistics and language pedagogy: The state of the art* (pp. 302-323). Washington, DC: Georgetown University Press.

Wenden, A. L. (1998). Metacognitive knowledge and language learning. *Applied Linguistics, 19*(4), 515-537. doi:10.1093/applin/19.4.515

Wright, K. L., Hodges, T. S., & McTigue, E. M. (2019). A validation program for the Self-Beliefs, Writing-Beliefs, and Attitude Survey: A measure of adolescents' motivation toward writing. *Assessing Writing,* 39, 64-78. doi:10.1016/j.asw.2018.12.004

Yıldırım, M. (2021). Örneklem ve örnekleme yöntemleri. In S. Şen & İ. Yıldırım (Ed.), *Eğitimde araştırma yöntemleri* (pp. 61-93). Ankara: Nobel.

Zimmerman, B. J. (1995). Dimensions of academic self-regulation: A conceptual framework for education. In B. J. Zimmerman, & D. H. Schunk (Eds.), *Self-regulation of learning and performance* (pp. 3-24). Hillsdale, NJ: Lawrence Erlbaum Associates.

Zimmerman, B. J., & Bandura, A. (1994). Impact of self-regulatory influences on writing course attainment. *American Educational Research Journal, 31*(4), 845-862. doi:10.2307/1163397

Zimmerman, B. J., & Reisemberg, R. (1997). Becoming a self-regulated writer: A social cognitive perspective. *Contemporary Educational Psychology, 22*(1), 73-101. doi:10.1006/ceps.1997.0919