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SYSTEMATIC REVIEW OF STUDIES ON WRITING IN ELEMENTARY SCHOOL

Abstract: This paper presents a systematic literature review of studies about writing in elementary schools. A systematic search of databases was conducted to select studies. The aim was to identify and categorize difficulties and suggestions. A total of 52 articles published in peer-reviewed journals over the past 21 years were reviewed and analyzed using a well-established systematic literature review methodology, in academic-based research databases, after carefully reviewing the available literature and utilizing relevant sources. This review revealed that the studies mainly emphasize the relation between reading and writing, using technology in teaching writing, acquisition of writing and a method/approach or strategy suggestion, and structure/grammar in writing. Additionally, feedback, affective domain, and teaching writing at an early age are the focus points of other studies. The findings of this literature review allow teachers, administrators, and policy makers to employ and explore efficient writing activities to improve student engagement, motivation, and performance.

Keywords: writing, skill, systematic review, elementary school.

Introduction

Writing is a communication activity that conveys messages (information) to others in written form, using written language as a tool or media. The writing activity includes several elements: the author as the message delivery, the content of the writing, the channels or media, and the reader. Writing as a language skill is a complex activity because the writer must be able to organize the content of the writing and translate it into the diversity of written language. Behind its complexity, writing has many benefits, such as developing intelligence, fostering initiative and creativity, increasing courage, and encouraging the willingness and ability to gather information (Kurniaman et al., 2018) and support individual learning (Bangert-Drawn, et al., 2004; Graham & Hebert, 2011; Graham & Perin, 2007).

The ability to read and write is not enough to be called literate. Today, a literate individual should also have skills such as understanding, application, analysis, and synthesis. Information increases much faster and becomes a complex structure, so multimedia literacy gains even more importance; internet and computer technologies also contribute to writing (Yamac & Ulusoy, 2016). With formal education, the student should gain writing skill (Susanti et al., 2019). The first writing activities that

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students learn at the primary school depends on the first grade, and their success in this process affects their entire educational life. In the same way, the failure they may experience in this process adversely affects their success in all courses. For example, their success in the first writing activities affects math lessons because math success depends on writing and taking notes. For these reasons, writing should be developed at an early age (Maududi et al., 2018). Teachers were advised to pay due attention to writing instruction in the curriculum, and educational institutions made great efforts to create a writing culture. Unfortunately, the desired success has not been achieved yet (Kardas, 2021). A student's failure to develop their writing hinders their entire education, and they need to work harder in this process. Writing, written texts, books, and notebooks are the essential elements that form the beginning of education (Yamac & Ulusoy, 2016).

Especially teachers have the responsibility to develop writing, which is a complex process with physical and mental dimensions, and to create a writing culture in society (Kardas, 2021). The fact that the teacher is active in the learning process adversely demotivates the student. The freer the student is, the more actively he participates in the process, and the better he learns (Maududi et al., 2018). Furthermore, writing activities should be meaningful to the student. It should follow the student's writing level, language structure, vocabulary, spelling skills, and grammar level and be guided (Vega & Pinzon, 2019). For example, writing a story is based on a narrative scheme in one's mind; activating this scheme can be achieved with appropriate content and organization (Fayol, 1985, cited in Esperet, 1991). The teacher should assist the student in this process. In addition, within the scope of Vygotsky's theory of learning in a social and cultural environment, students benefit from their experiences and progress by working with their teachers and researchers and discussing them during the writing (Yamac & Ulusoy, 2016). Teaching students writing is challenging depending on the fact that students need to have a specific mental basis for developing this skills. However, writing can be improved with activities to be organized on this basis. These events should be planned not random (Korkmaz, 2015). For this purpose, activities can be designed where students can create quality products that they can write freely (Keles, 2015).

The ability to read, listen and write compared to speech is perhaps more complex due to spelling errors, using the wrong word, and the inability to explain the thoughts expressed in writing. However, these problems do not arise as prominently in other skills as in writing. On the other hand, the student has an advantage over other skills, so they can go back to the text and correct their mistakes (Keles, 2015). Writing has many advantages for students. Improving the writing allows the student to become familiar with the styles and standards of written expression and to clarify their thoughts about the subject they write (Ellis et al., 2005) to structure information, think critically, and better understand the subject. Above all, gaining writing skill helps the student to be independent, transparent, fluent, and creative in writing; it presents student thinking in a meaningful form. This skill is not just a set of basic skills taught in school. Since writing, reading, listening, and speaking mean communication, they are an integral part of the life of every educated individual. Written communication is another essential tool for people to express their ideas and learn about the opinions of others. Good writing also earns respectability (Ariana, 2010). Writing also supports language learning in five ways. First, it allows the student's thoughts to become apparent. For example, it will enable the student's opinions to be organized in order of importance. Second, it allows the student to connect their ideas. Finally, it integrates ideas and promotes the harmony of the organization of the text. Third, it allows for a reassessment of ideas. Fourth, it increases the student's knowledge of the target subject and finally enables the student to express an opinion in their sentences (Gillespie et al., 2014). Moreover, correct writing also supports effective communication. According to the National Program Research, grammar and usage are considered essential for academicians and teachers in terms of writing (Ezarik, 2003, Akt. Gallavan et al., 2007). Many teachers have little experience in how to learn to write. Writing activities can be started at an early age. For example, young students can do writing activities and note to close friends. During the semester, the teacher can follow the individual development of his students with these letters.

In addition, letters can be kept in a portfolio file for a long time and evaluated at the end of the semester. Moreover, it will be effective for teachers to direct their students to activities aimed at their writing, knowing the characteristics of the students and selecting activities that are appropriate for them. The writing activities given to the students must be open and understandable. For example, it is easier to explain "what does it mean?" in an activity than to explain the question "what does it not mean?" With students' writing activities, the teacher can see the strengths and weaknesses of the students in writing (Schulz, 2009). Furthermore, writing is critical in the mother tongue and the second language. Descriptive, small-piece, short writing activities are the activities used in the first stage of second language teaching. As the student's level progresses, writing activities become narrative writings. However, there may be shortcomings in the organization of the text and line with its deep meaning. Students with a high level of second foreign languages can effectively use it in descriptive writings and narrative writings (Way et al., 2000). Writing in a second language compared to a mother tongue requires a more vital level of grammar and fluency in the language. To accurately reflect the message, knowledge about using structures and patterns in that language should be obtained. The writing can be considered a multi-component process since it requires both linguistic and cognitive skills and effective use of information sources. In addition, being at an adequate level of writing is closely related to the student's psychological and sociological characteristics and level of education (Schoonen et al., 2010). Moreover using a tool must be also considered for the features of age of the student. For example using a pen at early ages compared to keyboard is also crucial in developing writing. Students' use of pens in typing activities is more memorable than in writing activities on the keyboard (Longcamp et al., 2005). Using a pen for improving writing increases the learning of spelling rules (Guan et al., 2015) and the level of spatial visualization (Spatial visualization: the ability to animate a shape in mind, to see and imagine from different angles). To conclude whether it is a native or a foreign language, both receptive skills – listening and reading – and productive skills– speech and writing affect each other and complement each other. With the integration of these four skills, the ability to use the language can reach the desired level, and effective communication can be established verbally and in writing in a foreign language. In addition, in the writing, the student performs different mental procedures simultaneously (Figure 1).

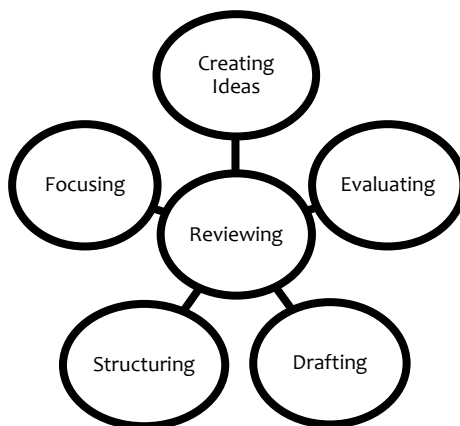


Figure 1.
Writing Model (White & Arndt, 1991)

Theoretical Framework

One of the most important inventions in human history is writing. Throughout history, people have shared their discoveries, scientific studies, ideas, artistic activities, joys, and sorrows by writing. People had the opportunity to say what they could not speak to anyone, written literary products

were created, scientific developments gained momentum, and civilizations were established. By using the possibilities of writing, technology has developed at a dizzying pace, and it has become ordinary to communicate and interact with the most distant point of the world; the framework of educational studies was drawn, academic activities were recorded, and suitable educational materials were prepared. For all these advantages and more, the importance given to writing education has increased daily. Today, basic writing skills are insufficient against the age requirements, and great efforts are made to provide individuals with high-level writing (Kardas, 2021). Basically writing education, which started to be considered in the modern sense since the end of the 19th century, a product-based approach was dominant, which was based on the product that emerged at the end of the writing. Afterward, it was accepted that writing is a process, and the student's activity and mental stages in this process became the focus. Genre-based writing approach, which emerges at the points where the process-based approach is criticized, focuses on the task of writing in the communicative dimension, at the same time focuses on the structural features of the text type, examines the structure, language, and stylistic elements of successful texts (Kardas, 2021). The literary review indicated that writing has different definitions depending on the authors' focus. There are two main perspectives on the history of writing theory and research. The first of these perspectives start from Greek rhetoric studies, extends to Rome and the Middle Ages, and then from classical rhetoric studies to modern times. The second perspective, which deals with writing teaching since the 20th century, examines writing theory and research in the light of contemporary disciplines such as composition, psychology, and linguistics (Prior & Lunsford, 2008). Some researchers underline the writing, some focus on personality and writing relation, and some highlight writing knowledge. For instance, Puranik and Lonigan (2014) emphasize three factors as influential in explaining the writing to determine the writing skill's theoretical framework. These are; conceptual knowledge, procedural knowledge, and generative knowledge. From another point of view, Hayes and Flower (1987) suggest a theoretical framework for writing, including four processes: planning, translating, reviewing, and revising. Gould (1980) states in his study that the writer spends two-thirds of his time on planning during the writing, and it is vital for the writer to use his knowledge and compose a text in addition to creating meaning (cited in Kellogg, 1999). Similarly, Kellogg (1999) presents the theoretical structure of the writing as creating meaning and delivering an understandable text for individuals with different backgrounds; writing does not only refer to the use of knowledge but also the creative presentation of knowledge. In another theory about writing, Ruch (2007) suggests a holistic model. This model contains three elements: emotional, organizational, and epistemological. These three dimensions focus on the writing individually. Sever (2004) also relates writing and personality and describes writing as a person's expression of emotions, Susanti et al. (2019) adds thoughts, plans, and experiences. Nugroho (2014) believes that writing can be a purification, a process of releasing emotions and tension, and improves the body's immunity because telling stories through writing is psychologically relaxing. Kellogg (1999) adds to individuality that the theoretical structure of writing is influenced by personal characteristics such as intelligence, motivation, and anxiety. Unlikely, Anson (1989) states that individuality is not effective in the theoretical structure of writing and adds uniqueness belongs only to man, which will not be effective in explaining the theoretical structure of a concept. Wagner et al. (2011) also suggest a model for writing. This model includes sentence making, expressing thoughts in different words, an average sentence length, fluency, spelling, and punctuation. Kellogg (1999) emphasizes that writing is a very productive skill in two ways. First, writing provides a rich source of methodological and empirical data. Second, writing reflects the richness of thought, which increases creativity. Kaufman and Kaufman, (2009) state that writing and creativity are interconnected, and creativity is based on socio-culturalism. In the sociocultural approach, psychologists, science and art sociologists, and anthropologists working on different cultures, art, performance, and verbal creativity come together; in this context, not only personal inspiration but also social factors such as working together, getting support, education and cultural background are effective in creativity. Moreover, Esperet (1991) relates writing and communication and continues as to write an article, it is necessary to know the subject, the features of the language,

the text types, the context, and the addressee within the scope of the communication as a minimum necessity. Studies aimed at developing any of these elements improve writing (Esperet, 1991). Similarly, Kardas (2021) relates writing and communication and adds that writing is the most minor used language skill in daily contact. The main reason is that it requires sufficient knowledge and skills in theory and practice. In the light of these explanations, what should educators do to develop students' writing skills? First, it is crucial to realize that writing suggests increasing one's concentration and improving organizational skills. Third, any strategy that organizes one's knowledge can be used for writing performance. Moreover, prewriting strategies change the way a writer works, and these strategies influence performance (Kellogg, 1999). Moreover, planning and continuous writing activities are essential in developing students' writing skills, and as with acquiring other physical and cognitive skills, gaining expertise in writing long texts requires years of conscious practice (Kellogg & Raulerson, 2007). Gaining expertise is another way to improve writing skills. For example, students can learn to write by using the processes in addition to strategies that expert writers use during writing. This is called expert writing, which often corresponds to the models of writing developed by Bereiter and Scardamalia and Hayes and Flower. Finally, it is clear that, unlike experimental studies, it is more effective to provide the student with experience in the writing rather than giving information to the student to develop their writing (Esperet, 1991). Students should be able to write text in any type of writing; they should be aware of the boundaries between formal and informal styles and develop the ability to recognize the expectations and needs of the reader. The student should also have academic writing skills (such as outlining, summarizing, reporting and discussing, paraphrasing, and synthesizing) that will increase the reader's awareness. In addition, the student should be given some theoretical information about writing that he will benefit from later, and the differences between written and spoken language should be taught (Ariana, 2010).

Method

In determining studies, the undermentioned criteria were taken into consideration. The studies should; be related to the writing skill at elementary school, be published in English, be published between 2000 and 2021, have suggestions for improving writing skill, be empirical or correlational, have full texts available, have an original structure, be published only in educational journals.

Studies were not included if they are published before 2000, are out of the scope of the research (for instance, studies only about disabled students), are qualitative studies (not depending on any empirical finding), are theoretical studies, are based on a thesis, are conference proceedings, are research reviews, reports, or final reports of studies, are published as a book.

This study was carried out according to the systematic review criteria determined by Implesseri and Bizzini (2012) below. Figure 2 shows the systematic review process and Figure 3 shows the selection process of studies.

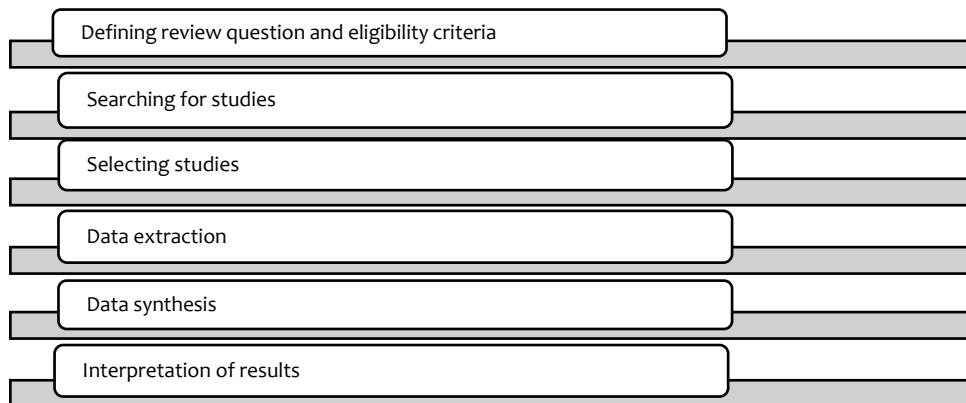


Figure 2. Systematic review process

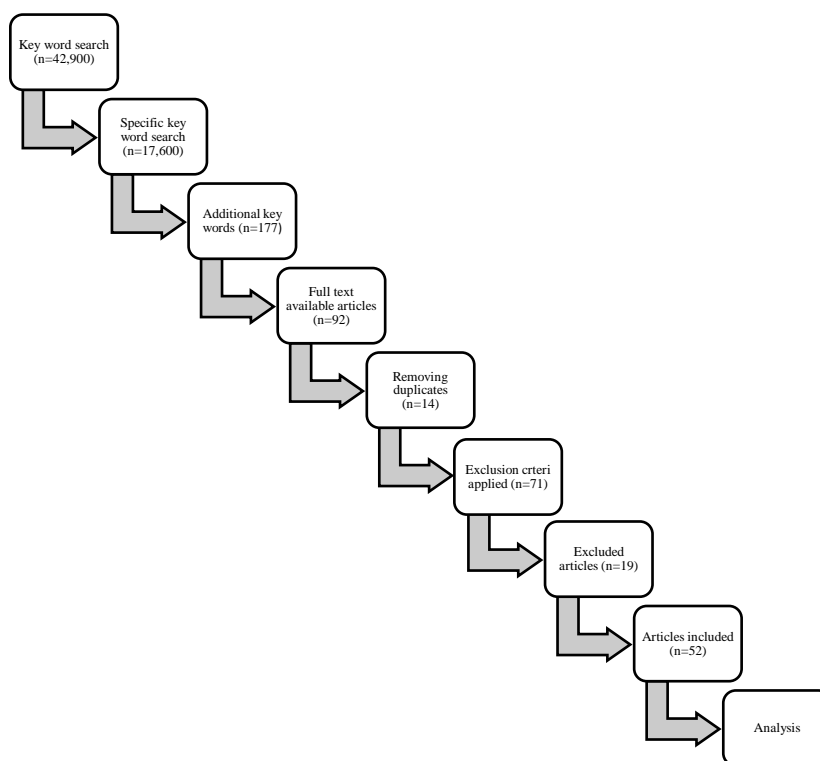


Figure 3. Selection of studies

Data Analysis

The studies obtained as a result of the literature review were examined according to the inclusion criteria, and the studies that met the criteria were included in the analysis. The studies were evaluated in accordance with document analysis (Yıldırım & Simsek, 2013). The data obtained from the research are explained, analyzed, and interpreted in document analysis. First, studies with suitable features for the research were determined at coding the data, and the studies were

numbered and classified together with the authors' names. Next, the researcher and an expert created an article review form to examine the articles systematically, and the identified studies were listed. To ensure the validity and reliability of the data collection tool, the form was examined by an academician, and studies showing the features targeted within the scope of the study were included in the sample. Studies that did not fit were excluded from the sample pool. The reason for the exclusion was started next to each study in Table 2. The studies were defined according to the information in the form. The form contains information about the research problem, publication year, place of publication, sample, and key findings of the article (Table 1). For the research, the data for each study was coded with a co-researcher. The studies were categorized in line with the main focus points.

Attention was paid to the analysis of the articles, which were evaluated to ensure validity and reliability, based on consensus by the researcher and expert, and the categories were finalized accordingly. The content analysis technique was used in the analysis of the data. The reliability of the study was calculated using the formula $\text{reliability} = \frac{\text{consensus}}{\text{consensus} + \text{disagreement}} \times 100$ (Miles & Huberman, 1994). Accordingly, the consistency between the coding made by the two researchers was determined as % 84.

The research sample and process were explained in detail to ensure the research's external validity (transferability). The characteristics of the studies were reflected impartially, as they were to ensure the validity, and it was aimed to reflect the real situation. In this study, the process was expressed clearly and comprehensibly, and the ready-made versions of the studies accepted as data in the research were recorded by the researcher so that the data could be examined by another researcher when necessary.

Results

In this review, first studies were first classified according to publication years. The highest number of studies were carried out in 2018 and 2019. Figure 4 presents the number of studies on writing in elementary education published each year.

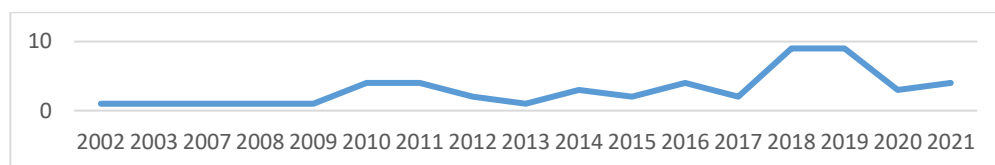


Figure 4. Number of studies on writing in primary education published each year

Figure 4 shows that the number of studies increase between 2017 and 2020 years. Secondly, it was examined in which countries the studies were carried out, and it was determined that the most studies were carried out in Indonesia, USA and Turkey. Figure 5. illustrates the number of papers published in different countries.

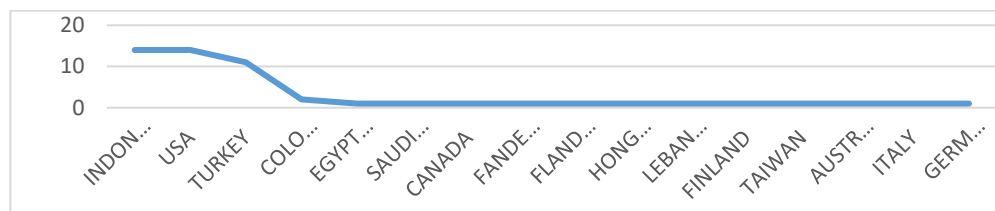


Figure 5. Number of papers published per country

Figure 5 shows that studies were conducted mostly in Indonesia, USA and Turkey. Thirdly, it was examined on which samples the studies were carried out. It is seen that the third and fifth grades are mostly preferred as samples in the studies. Figure 6. shows the sample of studies.

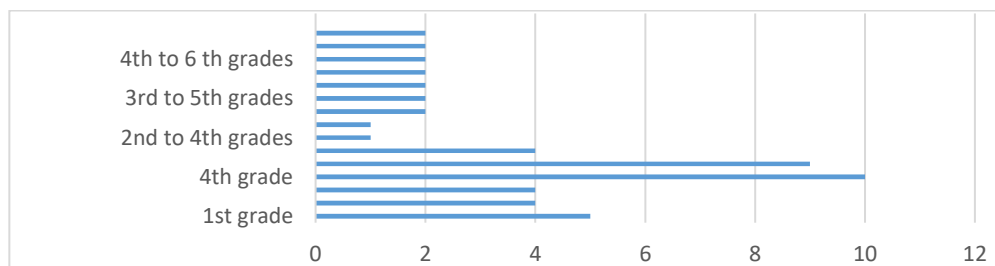


Figure 6. The sample of studies

Table 6 shows that that the fourth grade and above grades are selected as the sample. This study also focuses on the main propositions of studies on writing in elementary school. Table 3. shows the propositions of studies and their groupings.

Table 3. Propositions of studies and their groupings

The Relationship between Reading and Writing	Studies focus on linear relationship between reading and writing, how reading improves writing
Using Technological Devices in Teaching Writing	Studies focus on the effect of modern technology and technological devices, applications
Structure/Grammar and Writing	Studies focus on rules, grammar and sentence structure
Creative Writing	Studies focus on how to improve creative writing with activities or methods
Giving Feedback on Writing	Studies focus on the positive effect of feedback
Affective Domain and Writing	Studies focus on affective domain such as writing disposition, self efficacy or motivation
Acquisition of Writing and an Approach or Strategy Suggestion	Studies suggest approach and strategy such as bilingual training, cluster method logical thinking, multicultural approach
Assessment of Writing	Studies focus on assessment and compares traditional or alternative assessment
Vocabulary and Writing	Studies focus on vocabulary, the number of the words students know, using vocabulary appropriately, syntactic skills
Organization of Writing	Studies focus on organization, mapping in writing, planning writing, using think-sheets
Writing Skill and the Teacher	Studies focus on the effect of teacher, teachers' responsibility, how writing is taught
Predicting/Teaching Writing Skills in Early Ages	Studies focus on writing ability in early ages, trajectories of writing, following the development of writing
Local Features and Writing	Studies focus on local features such as local culture or local wisdom

Discussion

When the distribution of studies on writing in elementary school is examined by years, it is seen that the number of studies increased when 21st-century skills gained importance and more applied education was put in the center. At the same time, the increasing prevalence of technology and the introduction of technological opportunities to gain many skills in education throughout the world explains why the studies on writing skills have increased in these years and put technology at the center (Cheng, 2017; Pentury et al., 2020).

Most of the studies are conducted in Indonesia and Turkey. With the effect of education reforms in Indonesia, which is among the developing countries, studies in many areas have gained momentum (Mukminin et al., 2007). Turkey is also trying to improve its educational structure, and for this purpose, authors have been working in many fields, especially in the field of writing, in recent years (Altunkaya et al., 2018; Graham et al., 2021).

In most of the studies in the literature, it is seen that the fourth grade and above grades are selected as the sample. Considering that the first years of primary school aim to gain basic literacy skills, it is understandable why researchers conduct studies for the years after these skills are acquired.

Finally, the studies are grouped according to their main propositions. As a result of this examination, thirteen basic elements were determined. These are The Relationship between Reading and Writing, Using Technological Devices in Teaching Writing, Structure/Grammar and Writing, Creative Writing, Giving Feedback on Writing, Affective Domain and Writing, Acquisition of Writing and an Approach or Strategy Suggestion, Assessment of Writing, Vocabulary and Writing, Organization of Writing, Writing Skill and the Teacher, Predicting/Teaching Writing Skills in Early Ages, Local Features and Writing.

The Relationship between Reading and Writing

Some studies on the development of writing skills state that writing is closely related to reading. Ahmed and Rajab (2015) claim that although reading is the most difficult skill, it is a crucial element in developing the four skills of the second foreign language (reading, writing, speaking, and listening). In particular, extensive reading also improves writing skills because it contains examples of all the language features, offers a wide variety of words, and provides students with a wide range of languages. Similarly, Collins et al. (2017) state that writing also can be used to improve reading. Although writing and reading skills are taught separately, both are a whole and can be developed together. Both skills are interconnected as an active construction process. The student can support writing by using reading texts. Depending on the text he reads, he can have an idea about the subject he wants to write and see how thoughts can be organized with examples in the text he reads. Moreover, Collins et al. (2017) give an example; in the reading activity, an open-ended question is asked instead of a short-answer question, and if the student writes an open-ended answer about the text they read, they could express their thoughts more comprehensively. This can be described as using reading skills to reinforce writing. The student becomes freer, the teacher's control decreases, and the student's ability to find ideas for writing and organize these ideas improves.

On the effect of these two skills on each other, Chohan (2011) focuses on the fact that when students' writing skills improve, so do their reading skills, and the development of these two skills increases literacy. In this context, Correnti et al. (2014) state that both skills can be measured together with this connection. In this method (which will be discussed later in detail) the student reads and analyses this text, interprets it, and writes down what is wanted to be expressed in this text with his thoughts. However, there is no independent reading and writing activity while doing this. Instead, the student bases their writings on a justification and explains the reason. In this way, both the reading and writing skills of the students can be evaluated. Ulu (2019) indicates that reading activities allow students to think freely; for instance, reading activities such as storytelling can be used to improve writing.

However, considering the characteristics of the age group related to this connection in their study Kusdemir et al. (2012) searched to find 5th-grade students' reading comprehension achievement. Reading and writing education in the first years significantly affect students' cognitive, affective,

and social skills. They conclude that the reading and writing education to be given in primary school should be such that the students will develop these skills, should be compatible with their psychology and development, and should bring these skills to a level that they will use throughout their lives. Windiyani et al. (2019), on the other hand, use more precise statements about this connection and claim that reading and writing skills are closely related. Therefore, it is not possible to acquire writing skills without reading skills. Finally Kim et al. (2015) indicate that this relation (reading and writing) depends on the knowledge of the vocabulary as high vocabulary knowledge based on reading skills also affect writing. Less vocabulary in writing is also a result of less reading.

Using Technological Devices in Teaching Writing

Some studies examine how technological devices can be used and their effects on improving writing skills. Almasri et al. (2011) suggest using web quests for developing writing skills. In addition, they declare that students use the media to obtain information today; considering that especially EFL students are less likely to encounter native speakers, it is evident that authentic English activities such as videos, movies, and songs can improve students' writing skills. The environment that can provide this can be web quests. Web quests refer to websites prepared by teachers with selected materials. This environment enables the student to think critically, have fun while learning, use time efficiently, increase motivation, develop higher order thinking skills, and be exposed to different words and the use of language in different ways. Often writing in a second foreign language is seen as the weakest skill because the student cannot yet express his feelings in a newly learned language as easily as in his mother tongue. However, compared to traditional education, it is seen that there are significant improvements in students' writing skills in areas such as vocabulary, grammar, organization, content, length, and total score with web quests (Almasri et al., 2011).

Similarly, Susanti et al. (2019) suggest using Prezi for the development of writing, and they found that Technology and Prezi had a very positive effect on students' poetry writing skills and attitudes towards learning. The media, which transforms the learning process into an entertaining structure, is used in education as an effective tool because it provides a wide range of options that color the teaching environment. This diversity is increasing day by day. The Prezi application offers a more understandable environment for the student due to its features, such as providing more creativity than PowerPoint, displaying the content in a linear and non-linear way, and zooming in and out. At the same time, this application also provides a student-centered learning environment for reasons such as ensuring that the student is active and allowing him to shape the presentation as he wishes. Windiyani et al. (2019) generalize all media applications instead of suggesting one. They claim that multimedia application products help improve writing skills. Writing skills should be developed. Students reflect their views and experiences by writing so that both they and others can benefit from these experiences. The fundamental characteristic of an educated individual and a literate nation is writing. They also add that multimedia refers to bringing together different media elements. This combination's purpose is to have each media element's strengths and weaknesses and to provide more effective education with this connection. For example, the reading of a dialect in written material is supported by listening material. Text, graphics, images, photos, audio, video, and animation can be used in multimedia. In this way, the student learns information faster and more effectively. Today, the source of knowledge is no longer limited to books. Much more comprehensive resources can be accessed with multimedia elements. Dynamic and interactive presentations with multimedia tools, audio-image and text connections can be established, and thus students' narrative writing skills develop. Finally, a learning environment that attracts students' attention and appeals to different learning styles is presented with multimedia.

As another device Yamac and Ulusoy (2016) suggest using digital storytelling, they assert that digital story-telling settles the story more deeply in the student's mind. Visual and auditory elements are

much more permanent than the story told with sound only. The student who has difficulty in writing a story is the student who cannot write strategically. Writing must be based on a strategy, and digital storytelling provides that. It ensures that the story is written logically and that attention is paid to writing elements such as spelling and punctuation grammar. In digital storytelling, the student can reconstruct the story in case of any intervention or disruption. While digital storytelling supports students who cannot write, it enables students who write poorly to write better. As a result of their study they found that digital storytelling has improved the students' ability to generate ideas, organize, choose words and write fluently, and write better quality texts. It also supported the writing of story elements such as problem, setting, characters, and fiction in more detail, helped students gain an author's perspective, and broadened the composition.

Moreover, with the help of digital storytelling, students see that they can edit a text they wrote, delete some parts, create a draft, and design the sequence of events. They see that writing is a cyclical process; they realize that they can add pictures and texts whenever they want, and can review what they have written. For this reason, digital storytelling is an effective tool that can be used to improve students' writing skills.

Likewise digital storytelling, Istiq'faroh and Mustadi (2020) claimed that digital comics improved writing skills. This shows that the writing skill can be controlled by using appropriate media and teaching methods, and the student's success can be increased. In addition, digital comics motivate and visually engage students. This development may be because the story elements in digital comics provide good planning for the student. For example, features such as themes, characters, place settings, time settings, and the plot in the story they read enable the student to pay attention to these elements in their own story. In addition, a comic is a tool that enriches the teaching environment.

In a similar vein to digital story-telling and digital comics, Kurnia et al. (2018) suggest using Graphic Organizer Story Map. They focus on the fact that of the four language skills (writing, listening, speaking, reading), writing is the most difficult to acquire. Teaching materials can be used in the arrangement of this skill. With easier use for teaching, the writing becomes effective, fast, and meaningful. One of them is the graphic organizer story map. In this material, the centered circle presents the title or topic that students will create. The second circle serves as the outline or other elements as part of the story. The third circle acts as story development. Graphic Organizer Story Map is a visual medium that shows the relationship between the ideas and facts emerging in the story. Through this material, students learn about the relationship between parts or elements of the story. For vocabulary, Maududi et al. (2018) suggest Pictorial Crossword Puzzle Media; they state that the development of writing skills depends mainly on vocabulary knowledge. A pictorial crossword puzzle can be used for this purpose. In learning environments where these activities are used, it is seen that students' vocabulary increases and they write more successful texts. Another advantage is that students learn in a more fun and easier way. Fidaoui et al. (2010) state that computer-assisted learning motivates writing in a second language. With Call activities, the computer instantly offers suggestions for correcting student mistakes by expounding, which is effective in writing. In writing with pen and paper, the student first prepares a draft, organizes his ideas, creates his thoughts in a certain logic in his mind, then writes it and revises it after all the writing is finished. However, in the writing in the computer environment, the student's writing is recorded as soon as he starts typing on the keyboard, and the revision continues continuously with each additional words. Thus, when the text is finished, the student has fewer mistakes. However, in writing tasks written on paper, the entire document is revised after the writing is completed. In addition, the student writes with more motivation than paper and pen while writing in the computer environment. Computers increase the student's internal motivation. However, in this case, the student's keyboard skills are important. The student's ability to use a computer effectively affects

his computer-aided writing education process. Finally, some issues should be considered in computer-assisted writing. For example, some of these issues are the websites' reliability, having information about citation and bibliography to prevent plagiarism, and knowing the features of programs that teach writing. Similarly, Halimatussakdiah and Sumarwati, (2021) found that audio-visual media has positive effects on writing skills. Using media to develop writing provides a more enjoyable learning environment for the student as it contains both audio and visual elements. This environment attracts the student's attention more, removes the monotony and boringness of the lesson, and increases his motivation for writing. Elements such as graphics, diagram sound, and images also facilitate the teacher's teaching process. Hwang et al. (2014) go beyond the time and place patterns related to using technological devices in writing. In their study, they suggested a situational learning system. Students complete their writing tasks on the playground in the classroom or at lunch on their mobile phones. The purpose of this is to present the real-life environment and concept. This allowed the students to write more sentences. This mobile device showed the students words related to the topic during the writing, gave suggestions for sentence structures, and offered them the opportunity to take pictures about the subject they were writing. In addition, this device allowed students to read and comment on each other's texts. Students attend real-life writing activities in an authentic environment. Students who write in real-life settings can make more detailed descriptions. They also present what they have written in more meaningful pieces by common grouping ideas. However, the more students can use grammatical structures such as adjectives, conjunctions, and adverbs, the more they use these elements in their texts.

Thompson and Childers (2021) suggest using technological applications for coding in writing. While writing with coding, students see the effect of adding, removing, or changing on their writing projects. Then they make the necessary changes. With such programs and applications, if the student encounters a problem completing any project, he realizes that he can end the project by trying different possibilities. In addition, the student sees the cause and effect relationships and the connection between the project elements. With coding, the student gains self-confidence that they can write different texts. Students' creativity increases and their imagination develops. In addition, the student sees the algorithm and logic of writing, chooses his character (avatar), designs it as he wishes, and shapes the character's environment. Thus, he creates his free environment and acts more independently, enjoying the activity of writing more. Finally, they have a fun time. Both writing skills and coding skills develop. Finally, Drexler et al. (2007) suggest using Collaborative Blogging as a Means to Develop Elementary Expository Writing Skills. By writing a blog, the writing time can be increased, the writing activity is taken out of the classroom environment, and it moves away from the limitation of the traditional writing activity. Blogs can be on any subject, for the contents of different curricula. Unlimited cooperation can be offered with comments and feedback that can be written on these blogs. This collaboration, which includes mutual correspondence, provides the potential to improve writing skills. Blogging activities can be done by students at different grade levels and with different content. Students' typing skills on the keyboard improve, and they write faster. By blogging, students' ability to express themselves improves (self-disclosure concept), use technology more effectively, and note-taking skills improve, students' attitudes towards writing improve positively.

Structure/Grammar and Writing

Some other studies emphasize the structure of writing. For instance, Erdogan (2011) presents a relationship between the phonological awareness and writing skills of First Year Students in Primary School. Phonological awareness means understanding the relations between sounds and letters. In preschool, students should be given phonological awareness training to benefit more effectively from formal writing education and transition to writing more quickly. Teachers working in preschools should help students and children become aware of sounds and develop phonological awareness skills by using rhymes, riddles, children's poems, or songs with rhymes. In addition,

phonological awareness studies should be carried out for students who cannot perceive sounds correctly, are not aware of the sounds they hear and produce, and therefore have problems in the writing. Similarly, Kusdemir Kayıran and Karabay (2012) recommend phonics-based sentence method and decoding (analysis) method. Reading and writing skills affect lifelong learning skills such as understanding, questioning, sequencing, associating, and estimating. Phonics-based sentence method (PBSM) can be used to develop these skills. According to this method, the ability to read or write begins with phonemes and then continues with chunks, syllables, words, sentences, and texts. Their study determined that there was no difference in the students' reading skills who learned to read and write with different methods.

The writing structure is underlined by Olinghouse and Graham (2009) as discourse knowledge. Discourse knowledge has an essential place in the development of writing, it includes a lot of information, from different types of writing to knowing writing strategies, from grammar rules such as grammar, spelling and sentence structure. Student's knowledge determines how he writes. For example, a student who knows the text types can guess what they can write in the type of text requested or when a text about dogs is to be written, the student's knowledge of dogs can lead to a more comprehensive text. The fact that the student has a lot of literary or vocabulary knowledge will help him to think about which more literary words he can use instead of this word in the writing. About the structure of writing Vega and Pinzon (2019) underline two basic elements that force the student to write, one is the lack of words, and the second is the lack of structural knowledge such as grammar, spelling, fluency and word choice. They also add that writing is a difficult task and requires cognitive effort and time. Writing is not just putting words together; it is a process that includes knowledge, information, time, and personal opinion. Writing in a second language is much more difficult. It takes a lot of practice for students to improve their writing skills. Teachers need to offer them options that include different types of writing. In addition, students take more pleasure in writing articles on topics that are more or less informative and suitable for their interests, needs, and expectations. On the other hand, Zulela et al. (2021) suggest synthetic analytical structural methods. Synthetic Analytical Structural Method is a method designed with images containing synthetic, analytic elements. These can be cards with inscriptions, syllable cards, word and sentence cards. In this model, the sentence is first presented to the student as a whole and then decomposed. After that, the student is given as a whole sentence again, and the student is allowed to see how a meaningful structure can be formed. The sentence is divided into words, words into syllables, and syllables into letters. The student's writing skills develop by seeing this meaningful parts and the whole. As the student writes, he expresses his feelings and thoughts more easily. Writing is a communication process in which emotions and thoughts are expressed. Teng (2019) indicates that text structure also affects students writing ability. How a text is designed, what elements it consists of, and its features are important elements of that text. Knowing these details can facilitate the process of creating a text in the future. Moreover, self-regulated strategy development can positively affect the student's writing ability. The model shows students how to use the information to set goals, organize and create content, and evaluate and review their writing. These techniques can be used to improve writing, enable students to generate more ideas, write more detailed articles, and construct sentences that are more meaningful. It encourages students to carry out a pre-planning process, constantly checking their writing as they write and self-organizing writing. Such strategies may have supported students' strategic competence in activating, organizing, and managing multidimensional processes for writing, thereby increasing text quality. For example, planning strategies may have made these students pay more attention to language formulation. Monitoring and evaluation strategies could also help them identify their strengths and weaknesses in writing.

Creative Writing

Some studies focus on creative writing. One of them is conducted by Babayigit (2018). He ascertains the effect of creative writing activities on attitudes towards literacy and language lessons. Creative writing, which has a long history, aims to enable students to participate more actively in the writing and involves students with different levels of writing skills in the writing activity with a fun process. Many factors affect writing success. The strengthening of students' desire to write cannot be explained only by the classical method used in the classroom. A strong desire to write is just as important as a student's ability to use their writing skills. In the writing, students should be able to write freely, away from pressure. In addition, as a result of the writing activity, it is necessary to read the products in the class or the group, share the students' ideas, and display the products on the classroom board. For the development of writing skills, the student must first enjoy writing. Creative writing is based on presenting the impressions obtained from the outside world with a different presentation and in an authentic way; in a sense, creative writing is "freely writing." In the creative writing, students feel emotional comfort in a social environment where they are not forced; with the desire and curiosity to write; away from anxiety and fear of criticism and compose freely without the pressure of the majority. As a result, students spend more time in the given scenario and enjoy writing. In a rapidly developing and changing world, it is necessary to acquire creative writing skills effectively. Thus, students can adapt more quickly, think more practically and creatively, express themselves better, and have different qualities from other individuals. In creative writing, the following can be asked: What will my life be like when I turn 40? What would happen if sugar water came from the sky instead of rain? If I were an animal, what animal would I be? Write an article about your favorite place on your face. Write a story of an older man, bagels, bottles, and leaves. Ulu (2019) also search to demonstrate the relation between fourth-grade primary school students' creative writing and story elements in narrative text writing skills. Writing narrative stories, compositions, poems, diaries, and texts that will create content in picture books can provide important conveniences for developing writing. Although the students' creative writing are not significantly developed at an early age, the variety of words is less, the organization of thoughts is more difficult to understand, the grammar rules are not used enough, and the students can overcome these deficiencies with story writing activities.

Santosa et al. (2019) describes the effectiveness of local wisdom-based teaching materials on creative writing. The cultural literacy test was applied in their study. Local culture materials help the individual learn the characteristics of the society he lives in and improve students' creative writing skills. Writing skill reflects how creative an individual is in thinking. If an individual can write creatively, they have a vast imagination and can use their language skills effectively. The course material, which includes the environment in the student's cultural atmosphere, makes it easier for students to develop ideas because they already have prior knowledge about their own culture to express creative ideas.

Gokcen (2019) focuses on creative writing activities in elementary writing, claiming that creative writing activities improve student writing and writing skills. Creative writing allows students to express their feelings, thoughts, and impressions freely. This type of writing has no right or wrong, the focus in on imagination and originality; the priority is not grammar, allowing students to write free as they want, but distracts the student from boring writing activities that lead the student to write in specific patterns.

Giving Feedback on Writing

Hier and Eckert (2014) verify the impact of immediate feedback. With performance feedback, students in the experimental group are given a new story to complete each week. On the second page of this activity, there is an up or down arrow depending on how many words the student used

in the previous writing activity. In addition, this group is given a probe on the previous week's writing activity on the third page. In the study, a maintenance session was also organized, and in this session, a study without feedback was presented to the students. The study, which lasted six weeks and was given performance feedback to the experimental group every week, showed that regular performance feedback increased the students' writing fluency. In their study, Yate Gonzalez et al. (2013) test the effect of cooperative learning on writing. They stated that in group work, although the students initially thought that their views could not be taken into account in the group, they later realized that working together offers more than an individual contribution. During writing, the students benefited more from the feedback they received from their groupmates (compared to the feedback from the teacher), used the language more, and corrected more mistakes. In this case, both the student who received feedback and the student who gave written feedback used the language effectively. Similarly, Maki et al. (2002) counseled reflective writing strategies on students writing skills. Self-regulated strategy development was used; first, writing errors were analyzed. Afterward, the strategy of creating a composition is taught, then the written text is revised in terms of spelling, and finally, the student is asked to evaluate the text he has written; this strategy was effective in spelling but not in composition length. Working with the student one-on-one on his own mistakes and giving him feedback affects the student's writing skills.

Andrade et al. (2008) suggest using rubrics for giving feedback. They studied the effect of rubric-referenced self-assessment and model papers on students writing. They claim that rubrics can be used for effective feedback in writing. The student's opinion on a sample writing text and commenting on the strengths and weaknesses of the text will enable him to pay attention to these elements in the text he wrote in the next step. The text can be evaluated in terms of ideas and content, organization, paragraph formatting, voice and tone, word choice, sentence fluency, and conventions in the rubrics used. Finally, the effect of feedback on fluent writing was presented in Kaya et al. (2020). Writing skill is acquired later and develops more complicated than the other three skills. To shorten this process, the student should receive feedback. For the student to gain fluent writing skills, it is imperative to give feedback on the text written by the teacher. This feedback can be verbal or written. However, if verbal feedback is given, the communication between the teacher and the student also increases. In addition, oral feedback helped the students see their and their peers' writing errors and exchange their ideas about the writing. It would be said that feedback in developing students' fluent writing skills might increase their motivation for the writing and their writing engagement.

Affective Domain and Writing

Some studies underline affective variables for writing. One of them is a study conducted by Bulut (2017). He ascertained the effects of writing attitude and writing self-efficacy beliefs on summary writing success and concluded that many factors affect an individual's writing skill—these; are expressed in cognitive, emotional, or physical aspects. However, the most important ones are emotional factors such as attitude towards writing and self-efficacy. Attitudes towards writing and self-efficacy beliefs affect students' enjoyment of the writing and their happiness when they write. Being successful in the writing activity also depends on a positive attitude and a high self-efficacy. Writing a summary requires a well-planned process. It is not a random post; it requires determining the essential elements of the main idea of the subject and structuring them as a whole by logically ordering them.

In another study Akyol and Aktas (2018) aim to find the relationship between fourth-grade primary school students' story-writing skills and their motivation to write. An important factor affecting students' writing skills is the high level of inspiration for writing. Basis for writing includes two primary elements: the author's self-efficacy and the perception of the text to be written as a value. For the teacher to support the development of writing, it is necessary to minimize the differences

arising from the level of motivation. For this purpose, teachers can do activities that increase motivation for writing in the classroom. Students who are more motivated to write and use their capacities in this direction best perceive themselves as more competent. Enabling students to write articles on topics that interest them, providing them with opportunities to choose from, and enabling them to check their writing can be activities the teacher can do. In this study, it was seen that female students had higher motivation for writing, and at the same time, their story writing skills were higher than male students were.

De Smedt et al. (2016) indicated that students with high self-efficacy for thinking and autonomous motivation write qualitatively better narrative and informative texts. Students with controlled motivation are less likely to be successful at writing narrative texts. In addition, the teacher's proficiency in writing is positively correlated with the quality of the students' informative text. Motivation is an important factor in developing a student's writing. However, it is challenging to motivate the student to write.

Iseri (2010) underlined writing disposition in terms of different variables. Female students writing disposition is more positive than males. Disposition can be defined as an individual's thoughts and behaviors towards a concept, depending on their experiences. Disposition is also related to the student's internal motivation about how to cope with difficulty and his ability to take risks to solve the problem (Piazza & Siebert, 2008). The ability of the student to overcome the difficulty in the writing is related to his disposition. For motivation De Smedt et al. (2016) indicate that students with high self-efficacy for thinking and autonomous motivation write qualitatively better narrative and informative texts. Students with controlled motivation are less likely to be successful at writing narrative texts. In addition, the teacher's proficiency in writing is positively correlated with the quality of the students' informative text. Motivation is an important factor in developing a student's writing skills. However, it is tough to motivate the student to write.

Acquisition of Writing and an Approach or Strategy Suggestion

Steinlein (2018) suggests using a bilingual training program. He evaluated the development of German and English writing skills in a bilingual primary school in Germany. He concluded whether the student learns a new language as a minority in a society or learns his language; a language education that will be given following the characteristics of that age at an early age will improve children's writing skills. While developing writing skills is so complex, developing writing skills in a second language is much more difficult. With a bilingual training program, the student's writing skills can be improved in both the mother tongue and the second foreign language. Ahn (2012), on the other hand, focuses on another way of teaching writing as a Genre approach. He propounds teaching writing skills based on a genre approach to L2 primary school students. Vygotsky's scaffolding theory can improve writing articles and reports. The genre approach focuses on planning, drafting, editing, and revising for writing. It also emphasizes the context of writing. With the genre approach, the student makes sense of the world and realizes that he can use writing as a tool. This approach was influenced by Vygotsky's theory of the zone of proximal development. According to the ZPD, learning means that a more knowledgeable person will support the learner, for example, his teacher. This area, where understanding develops, is referred to as a zone (Vygotsky, 1978). During writing, various types of texts should be presented to students as examples, students should be told that they are not expected to write the texts, and although there are books for writing, teachers should be able to make different decisions according to the class and the student.

Sahbaz and Duran (2011) underline the cluster method. They examined the efficiency of the cluster method in improving the creative writing skill of 6th -grade students in primary school. The cluster method means focusing on creativity (related to the brain's right hemisphere) in writing and

underlining using both hemispheres of the brain. Clustering is also a method of brainstorming. When the associations come to mind with lightning speed, our imaginary thoughts in our brain is revealed. The ideas and inspirations in the cluster-forming process are products of the brain's right hemisphere. Our experiences seem disorganized and confused. When creating the cluster, we start typing without looking for answers. What, where, who, when, how (Durukafa, 1992). The set, which means the connection of thoughts and concepts with associations, develops around a focus. This focus is called the core. The core word forms ancillary words that vary from person to person (Durukafa, 1992). The core word's connotation does not follow a specific logical sequence in the clustering method. In addition, these words can be connected according to the meaning relationship; the new association can be connected directly to the core. In this process, the left brain can suppress all this as "empty work". The pressure to preach logical thinking is an obstacle to creativity. The critical point here is to make the right brain work freely. Students who used the clustering method were more successful in writing essays. In another study, Habibi et al. (2020) suggest Direct Writing Activity. Writing is the hardest to acquire among the other four skills, and the acquisition of writing depends on developing these other three skills. Many elements make it challenging to write. Some of these are; the teacher's teaching skill, the student's interest in learning, the learning strategies and methods used by the student, the teaching materials used, the learning environment, and the time allocated for teaching writing skills. A direct writing activity strategy can be used to improve writing skills. In this strategy, the student first prepares for the writing activity. For this purpose, a topic is determined and explored where information can be collected about this topic. Then the borders of the subject are determined, and in this context, it is decided which questions to look for answers. After that, students write the draft texts, and finally, these draft texts are reviewed. Finally, after editing, the final draft is presented. In addition, the concept map can be used in the direct writing activity to improve writing skills. Thus, the student organizes his thoughts and sees the connections of the concepts with each other.

Alfulaila et al. (2019) aim to determine the effectiveness of a multicultural approach in writing achievement. Instead of using new methods and materials, teachers' teaching with the lecture method causes the education process to be inefficient. In addition, this situation causes students to get bored, their interest to decrease, they learn more intricate and late. The core values of multicultural education are democratization, humanism, and pluralism. Democratization is an extensive term, both cultural, political, and social justice. Meanwhile, humanism acknowledges plurality, heterogeneity, and human diversity. Finally, pluralism refers to the view that recognizes diversity in a nation. Multicultural education is a comprehensive school reform and basic education process for all students. Multicultural education challenges and rejects racism and other forms of discrimination (ethnic, racial, linguistic, religious, economic, and gender) in school and society. In multicultural education, first, teachers should develop an awareness of reality bias, prejudice, and discrimination that others and they face. Secondly, they should also know external perspectives and culture. Third, they must develop their ability to teach different cultures and learning styles. Using the multicultural approach by giving examples and current issues related to daily life can set a good value, which can be applications from different cultures in the student. This development also positively affects their writing skills. In another study, Kurniaman et al. (2018) searched to evaluate the effect of the think talk write model. Many students find it challenging to write. This situation reveals the necessity of doing studies to improve writing skills. The reason why students have difficulty in writing is that teaching still depends on the teacher. The educational process under the teacher's control prevents students from expressing their ideas orally and in writing. The development of the student's creativity and independence is hindered. To solve this problem, students need to develop their narrative writing skills. Think talk write model can be used for this purpose. In this model, the student begins to think or engage in a dialogue with his friends after reading a text. Then, before writing a text on the subject, he talks to his friends and shares his ideas. This is more effective when done in groups. In groups, students are asked to read the texts, take small notes about them, listen to their friends, share their ideas, explain their opinions, and then

write them down. In this model, besides learning to write notes after reading the text, it develops thinking activities before, during, and after reading. After the thinking phase, the speaking step starts, and students are asked to communicate using the words and language they understand. This communication stage (speaking) enables students to gain speaking skills. Students learn the communication process throughout their lives as individuals interacting with their social environment. The communication process can be created in the classroom and used as a tool before writing. Comprehension is also built through interaction in the discussion. Discussion is expected to bring a solution to a given problem. This stage is the writing stage. The goal is to write down ideas from the first and second cycle activities. Writing helps achieve learning goals. The teacher sees how much the student has learned the concepts in this writing activity. Finally, teachers spot students' mistakes by tracking their best writing activities. Similarly Vega and Pinzon (2019) suggest a process-based approach. This approach links the writing stages and strategies, and the product. Students primarily communicate in a second foreign language and do pair and collaborative work. While the student learns with guided activities at the beginning, they then move on to an independent writing. A checklist can be used in these guided activities. In addition, the student can assess their writing with the checklist, especially with pair share activities, the student reaches the real audience and gets feedback. Unlike these studies, students were given spelling strategy and writing training in the study conducted by Maki et al. (2002), it has been observed that the students participate in the writing activity more actively and have a more positive attitude. It shows that the students' spelling skills also improve in composition writing and that spelling can benefit students with writing difficulties without intensive teaching in other writing sub-processes.

Assessment of Writing

Casey et al. (2016) research the effect of traditional and alternative assessment methods in writing. Usually, curriculum-based measures are used in assessing writing, but the expression and development of ideas are neglected. CBM foresees a probe based on the curriculum, including the number of words written and whether the article complies with the predetermined curriculum criteria. However, these are not indicators of good writing. This is more of a sign of mechanical writing. Elements such as fluency, accuracy, punctuation, spelling, and capitalization should also be considered. However, the most crucial point is that the student can correctly articulate ideas, express what he wants in the text, provide coherence, and use elements such as nouns, verbs, and adjectives. The talent of the student, who has an outstanding process skill just because of a mechanical typo, should not be neglected. Therefore, both traditional and alternative writing assessment methods can be used together. Correnti et al. (2014) suggest an alternative assessment method for writing; developing a response to text assessment: with the response to text assessment, the first student reads the text and then he writes what the author wanted to express in his own words. Students support their opinions by providing a basis for what they wrote about the text. While reading skill is usually measured only with test or short answer questions and writing skill with open-ended text writing questions, this assessment method offers a different, non-traditional alternative assessment for both skills.

Vocabulary and Writing

Silverman et al. (2016) state that the more words the students know, the more meaningful and comprehensive essays they will write. They will express themselves and their thoughts better; for instance, they will design their thoughts based on a given picture in the scenario. To effectively convey ideas in writing, students need to use vocabulary appropriately, to make sense for students with more vocabulary, to express their thoughts in writing better. In addition to words, morphology, which includes combining meaningful word groups, compound words, and word derivation, is another factor that affects writing skills. Moreover, syntactic skills are also significant, which means using accurate and varied grammatical constructions. Different activities can be used to determine

the language use skills of students. For example, a picture can be given for vocabulary, and the student's vocabulary can be evaluated. For syntactical knowledge, a picture-prompt task rather than a grammaticality judgment task, and a task requiring morphological decomposition can be given for morphological skill.

Valentin et al. (2018) suggest using a vocabulary chart in EFL writing. One of the most important factors preventing the development of writing skills in English as a foreign language is the lack of vocabulary. Especially in primary school, a vocabulary chart can be used to improve vocabulary because, in this way, the student sees both the word's meaning and the picture on the chart, and learning becomes more permanent. Students in the primary school age group remember concretely, more easily what they see, but at this point, although he learns the word visually more efficiently, he may have difficulty putting his thoughts into writing by using these words. During the writing activity in the second foreign language, the student can also write in the mother tongue and translate this text into the second foreign language after expressing his thoughts, to enable students to express their thoughts more easily. The student feels limited in a language they do not master. Writing in a second foreign language can be challenging for the student, as there is less vocabulary in that language; however, writing your thoughts in the mother tongue and then converting them to the second foreign language removes this limitation.

Organization of Writing

Dahlia (2018) investigated the effect of mind mapping in poetry writing, claiming that generally, writing poetry is neglected in schools, or students are only asked to write poems on a chosen topic, and no response is given. The only thing that needs to be done is to create a planned poetry writing at every stage. The student should first prepare for the subject to be written (pre-writing), then express his thoughts (when writing), and then the teacher should give him feedback (post-writing). The mind mapping technique can be used to carry out these stages more effectively. With this technique, the student places the ideas in his mind, organizes them, and uses the information when necessary. Since writing a poem is difficult for the student, he can reflect his thoughts better in verses with mind mapping.

Collins et al. (2017) suggest using think sheets to improve writing skills. With Think-sheets, the student gains experience in writing different types, such as a relevant result for a given situation or conversational text. With the instructions in Think-sheets, the student shapes their thoughts according to a certain logic while writing, organizes them, and writes a meaningful text.

Writing Skill and the Teacher

Graham et al. (2019) state that the student's writing skill, knowledge, motivation, and strategic behavior affect writing performance. The increase in the student's knowledge about a subject allows him to write more comfortably on that subject. This brings an essential responsibility to teachers. In addition, the teacher's teaching the student strategies such as planning, drafting, and reviewing the text he wrote increases the quality of the text written by the student but does not affect the length of the text. De Smedt et al. (2016) also claim when considering how writing is taught, it is crucial to consider both the quantity and quality of the current teaching. The quantity of writing refers to the time spent writing and hands-on writing activities. The quality of writing training refers to specific writing practices. Traditionally, teachers use traditional writing skills (i.e. teaching basic writing skills such as spelling, grammar, and punctuation). Teachers should teach basic writing skills so that students can develop readable handwriting and apply spelling rules and guidelines. However, achievement goals do not refer to students' ability to implement writing strategies such as planning and review. Therefore, there is a great deal of variability among teachers in whether and how they teach writing techniques. Moreover, achievement goals specify the minimum goals the

government deems achievable and necessary for students, but schools can autonomously decide on educational methods to achieve these goals. Therefore, teachers may differ significantly in integrating collaborative writing practices and ICT into writing lessons.

Gilbert and Graham (2010) state that teachers generally do little or no preparation for writing instruction. For example, the number of certified teachers is quite low. In this context, teacher education programs must be more geared towards writing. In addition, the time allocated for writing activities during the lesson is insufficient. Generally, 15 minutes are allotted for writing, but this time should increase to an average of 25 minutes. If the time constraint in the curriculum prevents the time allocated to writing, writing activities can be done at home to increase the student's daily writing time. Of course, it may not be possible for teachers to fulfill all the mentioned practices, but it is recommended that they increase the duration of writing activities in their classes as much as possible. For example, teachers can make evidence-based applications. Evidenced-based practices rely on planning, reviewing strategies, and modeling. After the students adopt guided writing activities, independent writing starts.

Predicting/Teaching Writing Skills in Early Ages

Hooper et al. (2010) confirm preschool predictors of elementary school narrative writing. The primary language skills, reading skills, and mother's education level in kindergarten age are effective in predicting the student's writing skills in primary school. The student's awareness of phonetics, capitalization, punctuation, and spelling in kindergarten allows him to write better quality texts in the future. If the student is good at reading and writing in the first years of his education, Matthew Effect will be better in the following years, but if he is unsuccessful in the first years, he will be reluctant in the next years and does not like activities (Stanovich, 1986). In this case, it is predicted that students with good writing skills will write better texts, and students with bad writing skills will not like writing. Similarly Kim et al. (2015) focus on the trajectories of first-year students toward writing. Students' writing skills need to be followed for a specific time. This way, it is possible to have an idea about the structures that affect the writing, such as vocabulary and grammar. For example, it is difficult to assess a student's writing ability instantly. The low socio-economic status of students also negatively affects their language development. The reason for this is that the student does not receive the basic education that he should receive in the family, causes the basic transcription, spelling, phenomenological and syntactic knowledge, and skills to be low, and he has difficulty in reaching a sufficient level with the education he receives at school. Although writing skills are aimed at high-level skills such as revising, initial voice development also depends mainly on neuro-developmental skills. Therefore, the student's skills such as spelling and letter writing transcription in the first years also affect their writing skills in the following years.

Lembke et al. (2003) identified an Indicator of Growth in Early Writing Proficiency. With Curriculum-based measurement, students' writing skills can be assessed. Accordingly, the sample texts written by the students in three minutes, the number of words written correctly, and the correct order of the words in the sentence can be decided. Following and developing writing skills at an early age enable the student to write more successful texts in the following years. Students first rewrite the written words, rewrite the sentences, then write the words the teacher dictated, and finally the sentences the teacher dictated. As a result, what and how well the students write is demonstrated, and a prediction can be reached about the writing skills of the students.

For early ages, Semeraro et al. (2019) underline the teaching of cursive writing in the first year of primary school. Cursive writing education at an early age positively affects the student's reading and writing skills in the following years. For the student to write, hand movements must also be practical. Otherwise, the student thinks about what to write simultaneously and tries to organize hand movements. The handwriting speed can also predict a student's success on more complex

tasks. For example, a handwritten student writes words more accurately, writes text faster, and reads the text he needs to read more quickly.

Chohan (2011) finds relationships between an elementary school letter writing program and student attitudes, literacy achievement, and friendship culture. When students' writing skills improve, so do their reading skills, and developing these two skills increase literacy. The best way to develop writing skills is provided by the student's active participation in the process, by organizing his thoughts and experiences and putting them into writing. One way to achieve this is to write letters. Letter writing improves literacy and social, emotional, and collaborative skills among students, offers a real writing environment, engages the student in the process, and develops a positive attitude towards writing with authentic writing activity in this social environment.

Local Features and Writing

As mentioned above, Santosa et al. (2019) focus on both creative writing and local wisdom materials. Teaching materials belong to one of the most important components of learning. Education traditionally delivered by teachers still uses standard teaching materials from the government, which are generic and far from where students live. This often causes children to have difficulty understanding the lesson, as they have to think abstractly about unfamiliar material. Uncreative teachers also do not want to develop teaching materials according to student's needs and situations, and teachers still feel the burden of administrative work. In addition, the availability of teaching materials based on local culture makes it easier for teachers and students to practice learning more effectively. Similarly, Mustadi, and Irvan (2021) suggest using a local wisdom-based story calendar to improve elementary school students' narrative writing skills. With narrative writing activities, both the communication and creativity skills of students develop. However, learning with local wisdom provides more permanent learning. The student learns within the scope of the elements he previously knew in his social environment. A local wisdom calendar can be used for this purpose. The local wisdom-based story calendar provides an image that supports the story being told. This can be a picture that contains the environment and the image described in the story together. The student visualizes the story and environment more clearly with these images. Local wisdom-based stories provide a stimulus for students. The student more easily understands a story about his environment and where he lives. They can listen to the story, create a mind map, analyze the characters, create an outline, and express what they would do if the characters in the story were in their place. A local-based story is an activity that can be used effectively to develop writing skills.

Conclusion

This review aimed to view the trends in writing studies within the past twenty-one years. It is clear from the research reviewed that writing is the most challenging skill of all language skills. The findings of this study go beyond previous studies, showing that writing skills can be developed by using technology, focusing on a specific method or strategy, and informing students about the structure of writing. Today, with the support of technology, easier and faster access to too many areas is provided. One of these areas is technology. With technology, students can learn to write more fun and permanently with the support of visual and auditory elements. In addition, the student may be more interested in the writing lesson. In this context, educators need to integrate technology into writing education first. Secondly, many methods and techniques expressed in the literature can be used in writing teaching for instance the student writes more systematically by using these methods and techniques.

The findings also confirm that many studies demonstrated the importance of knowledge about the language. Writing has basic structural features with vocabulary, grammar, and its use. Writing in a language also requires knowing the characteristics of that language, such as basic grammar, sound,

words, and sentences. The structural features of writing are also very effective for smooth and accurate writing. Moreover, in teaching writing, the student should be given feedback, the student's motivation, attitude, and enthusiasm for learning should be taken into account, and necessary precautions should be taken for the student to gain a positive perspective. As with all skills, the writing skill will be achieved early and will contribute to the student's success in the following years.

The studies included in this review have focused on the relationship between writing and only reading skills but have not considered the relationship between writing and speaking and listening. Moreover, most studies underlined the importance of technology; however, despite all the benefits, many schools and districts still lack technological opportunities, especially in developing countries. It is also open to debate on how effective the studies suggesting methods and techniques related to writing can be for teachers who do not have sufficient training on this subject. This review is very significant as at its center is a concern with helping teachers, educators, and curriculum developers to help students become better writers.

Limitations

This paper presents a systematic literature review of studies about writing skills in elementary schools. The results obtained in the study are limited to different variables such as the method, data collection tools and participants. This study includes only elementary school writing studies. However, the study did not include book chapters, research reports and papers. In addition, the studies included in this review are experimental. This study comprises experimental studies, but it should be stated that other types of study (such as theoretical studies) would significantly contribute to improving writing skills. Finally, it can be noted that the findings obtained in this study and the recommendations expressed are mainly aimed at elementary school students.

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Table 1. Literature Summary of Studies about Writing Skill in Elementary Schools

Code	Author & Year	Study Focus	Key findings
R1	Adel and Rajab (2015)	Improving second language writing skill with extensive reading.	Improvement in reading and writing proficiency.
R2	Almasri et al. (2011)	Examining the effect of WebQuest on students' EFL writing skills.	Significant difference in vocabulary, grammar, organization, content, length and overall score.
R3	Susanti, et al. (2018)	The improvement of poetry writing skills of student.	Increase in poetry writing skill with the use of Prezi Model.
R4	Babayigit (2018)	The effect of creative writing on reading and writing attitudes of students.	Increase in reading, writing and language lesson attitude.
R5	Hier and Eckert (2014)	The effect of giving immediate feedback on writing fluency.	Performance feedback produce short term desired effect.
R6	Bulut (2017)	The effect of writing attitude and writing self-efficacy beliefs on the summarization achievement of students.	Writing attitude and writing self-efficacy beliefs are highly correlated.
R7	Casey et al. (2016)	Analyzing alternative and traditional approaches to writing assessment.	Both assessment methods can be used for effective assessment and improvement.
R8	Chohan (2011)	Developing, improving, assessing school wide mailing program.	Students enjoyed responsive letter writing and their self-perception improved.
R9	Correnti et al. (2014)	Developing a response to text assessment (RTA).	RTA can be valuable tool for students' attainment of analytical writing and understanding how teaching relates to achievement.
R10	Ulu (2019)	Examining students' writing abilities in terms of different variables.	Significant differences exist in gender, keeping diary and the number of books students read in their writing scores.

R11	Akyol and Aktas (2018)	Examining the relationship between students' story-writing skills and their motivation to write.	Students' story-writing skills had a significant positive relationship with the value they placed on writing and their self-efficacy. Writing motivation varies in gender variable.
R12	Kusdemir et al. (2012)	Investigating the influence of two methods implemented in primary reading and writing teaching.	Non-significant difference was found on reading comprehension achievement scores of students who learned reading and writing using different methods.
R13	Santosa et al. (2019)	Describing the effectiveness of local wisdom-based teaching materials on the creative writing skills.	Differences before and after the use of teaching materials based on local wisdom towards students' creative writing skills and students' mastery in achieving creative writing criteria.
R14	Silverman et al. (2016)	Exploring relationships between language variables and writing outcomes with linguistically diverse students.	Language status, and transcription skills, syntactical skill was related to contextual conventions. For example, relationship between syntactical skill and contextual conventions differed for ELs and non-ELs.
R15	De Smedt et al. (2016)	Determining how writing is taught, how teachers think, how student characteristics, teacher characteristics, and classroom writing practices correlate with students' writing performance.	Students with a high self-efficacy for ideation and autonomous motivation wrote qualitatively better narrative and informational texts. Teacher efficacy for writing was positively correlated with students' informational text quality.
R16	Teng (2019)	Examining the writing outcomes of students learning English as a second language.	Compared with traditional instruction, the TSI (text structure instruction), SRSI (self-regulated strategy instruction) groups exhibited better writing.
R17	Thompson and Childers (2021)	Investigating how learning to code, using Google's CS First's Storytelling lessons, impacted elementary students' writing skills, writing stamina, and perceptions of writing abilities.	Students were motivated in the storytelling process through narrative writing through narrative writing and a significant increase in the overall scores on a pre- and post-writing assessment as well as writing stamina.
R18	Valentin et al. (2018)	Describing how vocabulary chart is implemented in the writing learning process to develop students' critical writing skills.	Vocabulary chart can develop elementary school students' EFL critical writing skills.
R19	Collins et al. (2017)	Examining the hypothesis that assisted writing during	Upper grade students with the longer treatment and higher fidelity of implementation

		reading improves reading comprehension.	benefited more from the intervention. The study extends theory and research on reading-writing connections
R20	Windiyani et al. (2019)	Developing multimedia and scientific-based educational games to improve writing skills.	Multimedia application products help teachers to convey messages and have a positive impact on improving narrative writing skills.
R21	Yamac and Ulusoy (2016)	Investigating digital storytelling's effects in improving students' writing skills in rural primary schools.	Digital storytelling enhanced students' ideas, organization, word choice, sentence fluency, and conventions regarding writing quality, story elements and word counts in stories.
R22	Zulela et al. (2021).	Determining the effectiveness of the use of the effect of synthetic analytical structural methods on the beginning writing skills of Students	A significant use of the influence of synthetic analytical structural methods on writing skill in the beginning of grade 2 elementary school students.
R23	Drexler et al. (2007).	Examining a K-12/university blogging collaboration between preservice teachers and third grade students.	Collaborative blogging improved students' attitudes toward writing. Feedback generated from the collaboration, rather than the use of technology, increased students' motivation to write.
R24	Dahlia (2018)	Examining the effect of mind mapping techniques on poetry writing skills of students.	There is an effect of using mind mapping techniques on students' poetry writing skills in elementary schools.
R25	Vega, and Pinzon, (2019)	Assessing the impact of the Process-Based Approach (PBA) on the development of young students' writing skills.	PBA was useful for enhancing the writing skills of young English learners. Strategies applied during the process bettered students' writing performance.
R26	Fidaoui et al. (2010)	Discussing the effectiveness of using computer assisted language learning (CALL) in motivating students to develop better writing skills.	Teachers and students shared similar perceptions toward using CALL in writing, identifying the same motivational factors that would encourage students to produce well-developed written work.
R27	Gilbert and Graham (2010)	Examining reported writing practices of elementary school teachers in grades 4-6.	Teachers are not adequately prepared to teach writing and the participating teachers reported spending only 15 minutes a day teaching writing.
R28	Yate Gonzalez et al. (2013)	Focusing on the role of collaborative work in developing elementary students' writing skills.	Teams adequately managed time and the subdivisions of the task to comprehend the given work. In addition, students comprehend the relevance and importance of their contributions to the initial task.
R29	Gokcen (2019)	Examining the effects of creative writing activities on	Creative writing activities positively affect students'

		native Turkish-speaking students' creative writing achievement, attitudes and motivation.	creative writing achievement, writing attitude and motivation.
R30	Graham et al. (2019)	Testing whether writing skills, knowledge, motivation, and strategic behaviors made a statistically unique contribution to predicting students' composition quality and length on a persuasive writing task.	Writing skills, knowledge, motivation, and strategic behaviors each accounted for statistically unique variance in predicting compositional quality.
R31	Halimatussakdiah, and Sumarwati, (2021)	Improving writing skills and learning activities in elementary school students, (the victims of the Mount Sinabung disaster).	An average of 89 with classical completeness 95%, 35% for Formative II, showing improvement and completion following the Minimum Completeness.
R32	Maki et al. (2002)	A case study with two Finnish 10-year-old boys evaluated an intervention designed to promote the spelling skills of elementary school students with severe writing difficulties.	Gains in spelling accuracy, spelling revision skills, decoding accuracy, and knowledge about the writing skill from baseline to posttreatment phase.
R33	Andrade et al. (2008)	Investigating the effect of reading a model written assignment, generating a list of criteria, and self-assessing according to a rubric on students' scores for a written assignment.	Using a model to generate an assignment's criteria and a rubric for self-assessment can help elementary school students produce effective writing.
R34	Hooper et al. (2010)	Examining the preschool predictors of elementary school narrative writing skills.	Core language abilities, prereading skills, and maternal education assessed at kindergarten entry as critical predictors of later narrative writing skills.
R35	Hwang et al. (2014)	Proposing a situational learning system to help elementary school students practice and improve their English as a foreign language (EFL) writing skills.	Activities presented within familiar contexts, supported by proposed EFL writing system, inspired students to write more sentences and describe the target objects clearly and thoroughly.
R36	Istiq'faroh, and Mustadi, (2020)	Developing students' creativity and writing skills through digital comics.	Digital comics significantly improve the creativity and writing skills and are effective in improving the creativity and writing skills of students.
R37	Iseri, (2010)	Evaluating the writing disposition of sixth grade students from the perspective of different variables.	Writing disposition of students in the confidence and passion sub-categories and the whole scale showed meaningful differences according to the school they attended.
R38	Kaya et al. (2020)	Investigating the effect of feedback on Turkish fourth-	Experimental groups' posttest scores were significantly higher.

		grade students' fluent writing skills.	
R39	Kim et al. (2015)	Examining growth trajectories of writing and the relation of children's socioeconomic status and language and/or speech impairment to the growth trajectories.	Children's SES (socioeconomic status) had a negative effect on writing quality and productivity and children with language and/or speech impairment had lower scores.
R40	Kurniaman et al. (2018)	Investigating primary students' writing skill after implementation think talk write learning model.	The think talk write learning model can influence elementary school students' narrative writing skill.
R41	Kurnia et al. (2018)	Measuring the effectiveness, practicality, and validity of the narrative writing material, Graphic Organizer Story Map.	Enhancement number of students who meet the passing grade on narrative writing.
R42	Alfulaila et al. (2019)	To highlight the role of multicultural culture in improving Indonesian language writing achievement among elementary school students.	The multicultural approaches proved to be more effective than the conventional one; and there was no interaction between the approaches and the learning motivation.
R43	Lembke et al. (2003)	Comparing alternative measures of early writing performance that teachers could use to monitor student growth and evaluate instructional effectiveness.	Indicators of early writing proficiency can be identified that will allow us to monitor growth in early writing proficiency and evaluate instruction.
R44	Habibi et al. (2020)	Examining validity of teaching material for writing.	Teaching material for narrative writing using direct writing activity is valid, practical, and effective.
R45	Maududi et al. (2018)	Analyzing the influence of pictorial crossword puzzle media toward vocabulary mastery and initial writing skills of the 1st grade students.	Teachers can use pictorial crossword puzzles media to enhance initial writing skills.
R46	Mustadi and Irvan, (2021)	Developing a local wisdom-based story calendar to improve narrative writing skills and to reveal the effectiveness of the developed story calendar.	Through the pictures, local wisdom-based stories, and literacy activities, elementary students can write narrative text more directed and easily.
R47	Olinghouse and Graham, (2009)	Examining whether discourse knowledge of writing predicted young developing writers' story writing performance.	Discourse knowledge is an important element in early Writing development and is an integral part of the knowledge-telling approach to writing.
R48	Sahbaz and Duran, (2011)	Searching the cluster method's effect on students' creative writing skill.	Cluster method using group was more successful than control group on academic success in writing skill
R49	Ahn, (2012)	Examining the effect of implementing a genre approach to develop writing competency of students.	The teacher's active scaffolding benefited students, increased confidence, and the approach

R50	Semeraro et al. (2019)	Investigating the efficacy of cursive writing teaching.	encouraged a positive attitude towards writing. Growth models on pre-, post- and follow up measures showed that performance on writing and reading skills were better among the children in the intervention group.
R51	Erdogan (2011)	Determining the relationship between phonological awareness skills and writing skills of students.	Phonological awareness skills were assessed at the beginning of the term, but they did not interpret the writing achievements of the students.
R52	Steinlein (2018)	Examining German and English writing skills of children who attended a partial German-English immersion program.	Early partial immersion programs help children's writing skills in minority and majority languages.

Table 2. Excluded studies and exclusion reasons

Exclusion Criteria	Authors & Years
Publication year	(Wienke, 1981; Hunt & O'donnell, 1970; Pajares & Valiante, 1997; Friedman, & Fowler, 1979; Lanauze & Snow, 1989; Adams, 1996; Pajares, Miller & Johnson, 1999; Hansen, 1985; Kardash & Wright, 1987; Bradley, 1982; Larson, 1975; Pajares & Valiante, 1999; Essex, 1996)
Proceedings excluded	(Sulastri, Hartati, & Herawati, 2020; Hwang, Chen & Chen, 2011; Sukma, Mahjuddin & Amelia, 2017; Ahwi, Iswara & Tursiva, 2021; Zulela & Rachmadtullah, 2019; Sofiya, Yulianto & Hendratno 2018; Sukma, Mahjuddin & Amelia, 2017; Cole & Feng, 2015; Nugraha & Indihadi, 2019; Cyr, 2011; Cakiroglu & Kuruyer, 2012; Dwimarta, Slamet, & Rukayah, 2016).
Thesis excluded	(Pranoto, 2011; Sims, 2001)
Theoretical studies	(Coop, White, Tapscott & Lee, 1983; Paquette, 2008; Graham, McKeown, Kiuwara & Harris, 2012; Jerles, 2012; Polisen, 2017; Widosari, Suwandi, Slamet, Winarni, 2017).
Out of scope	(Pajares, Johnson & Usher, 2007; Dostal, Wolbers & Weir, 2021; Gansle, VanDerHeyden, Noell, Resetar & Williams, 2006, Fauzi & Pratama, 2020).
Qualitative studies	(Saavedra, 2020; Velasquez, 2011).
Reviews	(Wollscheid, Sjaastad, Tømte (2015)
Not published in an education journal	Cheung, Tse & Tsang, (2003)

Biographical note:

Dr. Gülçin Karakuş was born in Kayseri in 1982. After primary and secondary education, she graduated from Marmara University Education Faculty. She completed her PHD in Department of Curriculum Teaching in Afyon Kocatepe University in 2020. She still works as a teacher in Ministry of Education in Sivas Turkey.