

**ISSN Online: 2616-8383**



**Stratford**  
Peer Reviewed Journals & books

## **Impact of Teachers' Grammatical Content Knowledge on Students' Writing Performance in Junior High Schools**

**Dominic Nti**

**ISSN: 2616-8383**

# Impact of Teachers' Grammatical Content Knowledge on Students' Writing Performance in Junior High Schools

Dominic Nti

Department of Arts and Languages, Berekum College of Education, Berekum

[dominicnti@becoled.edu.gh](mailto:dominicnti@becoled.edu.gh)

**How to cite this article:** Nti, D. (2026). Impact of Teachers' Grammatical Content Knowledge on Students' Writing Performance in Junior High Schools. *Journal of Education*, 9(1), 46-64. <https://doi.org/10.53819/81018102t4385>

## Abstract

Teachers' grammatical content knowledge is a foundational component of effective writing instruction among learners especially at the junior high school level where learners transition from basic sentence construction to extended, coherent written expression. Writing at this stage requires the integration of grammar, vocabulary, organization, and meaning-making within increasingly complex academic tasks. Despite this expectation, weaknesses in grammatical accuracy, sentence structure, and textual cohesion continue to characterize students' writing across many educational contexts. This study was grounded in Pedagogical Content Knowledge (PCK) Theory and Sociocultural Theory of Learning. The study adopted a desktop review research design guided by a positivist orientation to systematically synthesize empirical evidence on the relationship between teachers' grammatical content knowledge and students' writing performance in junior high schools. Relevant peer-reviewed journal articles, empirical studies, meta-analyses, and scholarly publications were identified through structured database searches using key terms related to grammar knowledge, writing instruction, and lower secondary education. The reviewed literature was analyzed comparatively to identify prevailing patterns, explanatory mechanisms, and research gaps. Findings indicated that teachers' grammatical content knowledge significantly predicts students' writing accuracy, sentence complexity, coherence, and overall text quality. Teachers with strong grammatical understanding were more likely to integrate grammar functionally within writing tasks, provide explanatory feedback, scaffold revision processes, and design instruction that supports meaningful language use. Conversely, limited grammatical knowledge among teachers was associated with fragmented instruction, overreliance on drills, superficial correction practices, and persistent grammatical errors in student writing. The review further demonstrates that teaching experience alone does not compensate for weak grammatical competence and that disparities in writing performance often reflect differences in teacher preparation and specialization. The study thus recommends improving grammar-focused components in teacher education, sustained professional development in grammar-writing integration, curriculum alignment, and further empirical research to inform targeted instructional interventions.

**Keywords:** *Grammatical content knowledge, Writing performance, Junior high school, Pedagogical Content Knowledge, Sociocultural Theory, Grammar instruction*

<https://doi.org/10.53819/81018102t4385>

## **1.0 Introduction**

Students' writing performance at the junior high school level remains integral in language education because writing demands the integration of grammar, vocabulary, organization, and meaning-making within a single communicative act. At this level, students are supposed to begin to leave sentence-level accuracy to coherent paragraphs and long texts that would reflect language structures control and expression clarity (Myhill et al., 2023). The writing activities in junior high schools frequently demonstrate the constant lack of grammatical correctness, building of sentences, and cohesiveness as the factor directly impacting the ability to express the ideas and assess them (Rao, 2019). These problems imply that the writing difficulties are not just dependent on the creativity or ideas but they lie deep within grammatical basis of the learners (Ellis, 1998). It has also been found out that grammatical knowledge is closely linked to the extensive literacy outcomes, such as comprehension and written expression (Zheng et al., 2023). Lack of grammatical control also can make the students write in a fragmented, ambiguous, or simplistic manner, which hinders academic progress (Ling, 2015). Therefore, enhancement of writing in students' needs to take into consideration grammatical resources that form the base of an effective written communication (Navaz & Sama, 2017).

In junior high school level writing is especially a challenging endeavor as the students are trying to move out of the guided language approach to a more independent and academic style of written expression. This shift reveals the holes in grammatical knowledge, which might have been hidden at the previous stages (Myhill et al., 2023). The aspect of writing is also getting more demanding in terms of clarity of meaning by exactness in the explanation, arguing and narrative practice by students, thus grammatical accuracy becomes vital (Rao, 2019). Mistakes in tense, agreement, clause format and sentence limits are common in compromising the quality of student texts at this level (Ellis, 1998). These challenges demonstrate that the performance in writing is not independent of the grammar knowledge that is developed as a result of the instruction (Ling, 2015). It is also empirically indicated that written language of students indicates the extent of grammatical concepts learned over a period of time instead of memorization of isolated rules (Zheng et al., 2023). Thus, it will be essential to investigate the origin of grammatical development to combat some systemic weaknesses in writing at junior high school (Navaz & Sama, 2017).

The level of writing instruction that the students get determines conclusively in the performance of the students in writing, especially in terms of their use of grammar. Teachers are the most significant facilitators of grammatical information, whether by revealing the presentation, practice, and use of grammar in the writing environment (Troia et al., 2026). In the case of teachers with good knowledge of grammatical content, they can find it easier to explain the structures of languages and to relate them sensefully to writing activities (Myhill et al., 2023). On the other hand, teachers with a poor grammatical background will end up teaching in a shallow way, focusing on correcting but not comprehending (Widagsa et al., 2025). Research has established that the instructional practice of teachers has a direct impact on the utilization of grammar among students in their writing (Rao, 2019). Good grammar training will help the students to make intentional language decisions as opposed to shunning complicated constructions (Ellis, 1998). This highlights the significance of investigating the grammatical content knowledge of teachers as one of the determinants of writing performance among students (Zhang & Sun, 2022).

The grammatical content knowledge of teachers can be defined as the knowledge in grammatical concepts, structures and functions besides the capacity to apply the same in the instructional

context. It has been shown that Teachers with high content knowledge feel confident and accurate in their explanations, feedback, and modeling of writing (Troia et al., 2026). These teachers can be in a position to shift the rule-based approach to teaching to grammar as a meaning-making tool in writing (Myhill et al., 2023). Conversely, those teachers who possess minimal knowledge of grammar could lean on textbooks or prescriptive activities which are not translated to better writing results (Widagsa et al., 2025). Such is the difference between instructional effectiveness and grammatical knowledge, which has been commonly documented in the literature of language education (Effendi et al., 2017). Grammatical knowledge of teachers is also what determines the way they identify mistakes made by students and the way they advise them accordingly (Ellis, 1998). Therefore, the grammatical content knowledge becomes one of the cornerstones of successful writing teaching (Zhang &Sun, 2022).

The teaching of grammar has been a subject of disagreement in language learning, and the lack of consensus has existed regarding its importance in the writing process. Whereas there are those that focus on implicit learning by exposure others are keen on the importance of explicit teaching of grammar in order to enhance accuracy and fluency in writing (Ellis, 1998). There are indications that explicit grammar knowledge will aid learners in making conscious decisions in the process of building written texts (Ling, 2015). The beliefs of teachers regarding grammar have a potent impact on the attempts to implement grammar in writing lessons (Al-Khresheh & Orak, 2021). The teachers who consider grammar and writing as detached are likely to provide ineffective and fragmented instructions (Navaz & Sama, 2017). On the other hand, when teachers think of grammar as a meaning-making system, they can make it an inherent part of writing work (Myhill et al., 2023). All these disparities underscore the role of grammatical orientations of teachers in influencing the performance of students in writing (Rao, 2019).

The teaching of grammar has been a subject of disagreement in language learning, and the lack of consensus has existed regarding its importance in the writing process. Whereas there are those that focus on implicit learning by exposure others are keen on the importance of explicit teaching of grammar in order to enhance accuracy and fluency in writing (Ellis, 1998). There are indications that explicit grammar knowledge will aid learners in making conscious decisions in the process of building written texts (Ling, 2015). The beliefs of teachers regarding grammar have a potent impact on the attempts to implement grammar in writing lessons (Al-Khresheh & Orak, 2021). The teachers who consider grammar and writing as detached are likely to provide ineffective and fragmented instructions (Navaz & Sama, 2017). On the other hand, when teachers think of grammar as a meaning-making system, they can make it an inherent part of writing work (Myhill et al., 2023). All these disparities underscore the role of grammatical orientations of teachers in influencing the performance of students in writing (Rao, 2019).

The teaching of grammar has been a subject of disagreement in language learning, and the lack of consensus has existed regarding its importance in the writing process. Whereas there are those that focus on implicit learning by exposure others are keen on the importance of explicit teaching of grammar in order to enhance accuracy and fluency in writing (Ellis, 1998). There are indications that explicit grammar knowledge will aid learners in making conscious decisions in the process of building written texts (Ling, 2015). The beliefs of teachers regarding grammar have a potent impact on the attempts to implement grammar in writing lessons (Al-Khresheh & Orak, 2021). The teachers who consider grammar and writing as detached are likely to provide ineffective and fragmented instructions (Navaz & Sama, 2017). On the other hand, when teachers think of grammar as a meaning-making system, they can make it an inherent part of writing work (Myhill

et al., 2023). All these disparities underscore the role of grammatical orientations of teachers in influencing the performance of students in writing (Rao, 2019).

The technological developments have equally transformed the way grammar and writing are being taught in modern classrooms. The success of integrating technology by teachers is dependent on their technological pedagogical content knowledge, which involves grammatical knowledge (Aksoy & Cetinkaya, 2025). The digital tools, simulations, and AI-supported platforms will provide new possibilities to use grammatical knowledge in writing scenarios (Pitura et al., 2025). Nevertheless, the performance of these tools is highly related to both the content knowledge and choices of instructors (Nguyen et al., 2023). The absence of good grammatical background can ensure that the use of technology is not deep and cannot improve writing outcomes (Ilmi et al., 2023). The teaching professionals who know grammar thoroughly can better use technology as a tool of meaningful writing instruction (Ong & Annamalai, 2024). Therefore, the knowledge of grammatical content is still paramount even in the learning environments that are technologically enriched (Duong & Chen, 2025).

The writing instruction practices on feedback also confirm the significance of grammatical knowledge of teachers. The feedback should also be effective, which means that the grammatical problems should be identified correctly and explained in a way that helps to revise (Jansen et al., 2025). Teachers who have a good grammatical knowledge give feedbacks that assist a student to know why the mistakes happen and not to simply correct them (Li & Lin, 2025). This kind of feedback will encourage learners to have independence and permanent growth in writing skills (Zhan & Teng, 2025). Conversely, feedback with restricted grammatical knowledge can be misleading and concentrate too much on superficial errors (Rao, 2019). Researchers have indicated that a grammar-centered feedback is most appropriate when it is performed in accordance with teaching objectives and the learning of the students (Deng & Sitthitikul, 2025). This also highlights the importance of grammatical competence of teachers in determining the writing performance (Myhill et al., 2023).

Grammatical content knowledge on the part of teachers is also critical in the collaborative and learner-centred writing methods. In scenarios where the teachers facilitate the interaction of peers and collaborative writing, teachers should have the capability to scaffold grammatical understanding (Khatib & Meihami, 2015). This kind of scaffolding helps students to negotiate language options and enhance the quality of writing (Myhill et al., 2023). Teachers who are well grounded in grammar have an opportunity to devise exercises which will promote the use of language significantly as opposed to automatic correction (Ellis, 1998). This strategy helps to contribute to more intense interest in writing as a process (Andargie et al., 2025). In the absence of the necessary grammatical skills, the collaborative writing activities cannot resolve underlying language problems (Widagsa et al., 2025). Thus, teacher grammar knowledge task is vital even on student-centered writing learning conditions (Rao, 2019).

New technologies like AI based writing programs have also shed more light on the inequalities in the effectiveness of instruction which are related to teacher knowledge. Although AI tools may facilitate the development of writing, teachers should also help students learn how to interpret and use grammatical feedback in a meaningful manner (Duong & Chen, 2025). Teachers who have high grammatical knowledge will be able to make students think critically regarding the AI-generated proposals (Zheldibayeva, 2025). In the absence of such guidelines, students can passively receive corrections without any awareness of grammar (Ilmi et al., 2023). There is

research that indicates that knowledgeable teachers mediate best when using technology to improve writing performance (Nguyen et al., 2023). This supports the notion that the knowledge of grammatical content cannot be abandoned even within the context of the instruction of writing enhancement that is technologically enhanced (Ong & Annamalai, 2024). In this way, the knowledge of teachers still determines the results of student writing even in the changing educational environment (Myhill et al., 2023).

Writing assessment also allows the assessment of grammatical competence of teachers. The competence of teachers to judge writing is based on the knowledge of grammatical constructions and their roles in meaning-making (Zhang & Sun, 2022). Poor or imprecise judgment might be brought about by poor grammatical knowledge, which can impact on the learning courses of students (Ellis, 1998). Educators who have high levels of grammatical background can be more prepared to meet the targets of assessment with teaching objectives (Myhill et al., 2023). This kind of alignment promotes reasonable review and positive comments (Jansen et al., 2025). Good assessment practices reinforce the students whose awareness of grammar as an aspect of writing quality is strengthened (Rao, 2019). Thus, the knowledge of grammatical content is crucial not only in teaching but also in writing evaluation (Navaz & Sama, 2017).

Although much has been done in studying writing instruction and grammar teaching, there are still gaps in the knowledge of how the content knowledge of grammar taught by the teachers specifically influences the writing performance of students in the junior high school level. A lot of the available literature focuses on grammar teaching or writing achievement rather than on their immediate relationship using the knowledge of the teachers (Troia et al., 2026). The research frequently concentrates on the strategies of students or methods of teaching without properly taking into consideration the grammatical competence of the teacher (Myhill et al., 2023). This gap constrains the capacity of generating specific interventions aimed at mitigating underlying factors of poor writing performance (Widagsa et al., 2025). This relationship is important to understand how to enhance writing teaching in junior high schools (Zheng et al., 2023). A specialized analysis of the content knowledge of teachers in grammar can explain the differences in the quality of writing among students better (Rao, 2019). This research is thus much needed and timely (Zhang & Sun, 2022).

To enhance the performance of students in terms of writing in junior high schools, one needs a better insight in the knowledge base that teachers assume in teaching writing. Grammar is not only a code of rules, but a means of setting up a meaning in a writing (Ellis, 1998). The grammatical content knowledge of the teachers determine the ways in which the students learn to use language in a proper manner, coherently, and purposely (Myhill et al., 2023). In case of a strong knowledge, teaching helps students to feel confident and competent in writing (Troia et al., 2026). In its weak form, there can be a failure to resolve the enduring language challenges through writing teaching (Widagsa et al., 2025). Exploring the connection between the grammatical content knowledge of teachers, and the results of their students writing performance thus provides an effective avenue into the enhancement of the results in language education (Rao, 2019). This research is based on the necessity to enforce the teaching of writing with informed and knowledgeable teaching practices (Zheng et al., 2023).

### **1.1 Statement of the Problem**

Teachers' grammatical content knowledge is a foundational aspect in effective writing instruction because it defines how grammar is explained, modeled, and applied within authentic writing tasks.

Strong grammatical understanding enables teachers to move beyond mechanical rule teaching toward supporting students in constructing meaning, coherence, and clarity in written texts (Myhill et al., 2023). Teachers with well-developed grammatical knowledge are better positioned to diagnose students' writing difficulties, provide accurate feedback, and scaffold increasingly complex writing demands (Troia et al., 2026). Conversely, limited grammatical content knowledge constrains instructional depth and often results in fragmented grammar teaching that fails to translate into improved writing performance (Widagsa et al., 2025). Given that grammar underpins sentence construction, cohesion, and text organization, weaknesses in teachers' grammatical competence are likely to be reflected directly in students' writing outcomes (Ellis, 1998).

Even though grammar is central to the development of writing, it has been shown to be the cause of poor writing performance among junior high school students in most education systems. Massive examinations reveal that a high percentage of learners in this grade do not write grammatically correct and coherent written messages. As an illustration, international literacy tests show that 45 to 60 percent of lower secondary students do not have the expected levels of proficiency in writing-related activities, especially in sentence construction and grammatical correctness (OECD, 2023). Similar studies conducted at a national level also indicate that over 50 percent of junior high school students have consistent grammatical errors that severely decrease the quality of writing (Rao, 2019). Those trends indicate that the difficulties in writing at this level are not specific but systematic, and it is necessary to question the efficiency of grammar learning offered to students (Zheng et al., 2023).

The persistence of poor scores in writing by junior high school students has been attributed to the inefficiency in teaching grammar particularly the manner in which grammar is delivered and taught within the lesson on writing. The studies indicate that most instructors use decontextualized grammar tasks that focus on the correction of errors, as opposed to the conceptual understanding and writing use (Effendi et al., 2017). Because of this, students tend to be unable to transfer grammatical knowledge of isolated drills to longer writing activities (Ling, 2015). It is also found that teacher confusion with grammatical concepts causes teachers to avoid explicit description when teaching writing, which restricts the chances of students to gain grammatical awareness (Beslagic, 2025). Such a gap in instructions is one of the contributing factors to repeated writing errors, such as run-on sentences, tense discrepancy, and poor integration of clauses in the texts of students (Navaz & Sama, 2017).

The existing information also indicates that the teacher preparation and continuous training do not always provide teachers with adequate knowledge of grammatical content to facilitate writing development. A survey of language teachers indicates that as many as 40% of them feel unconfident about teaching grammar past basic sentence structures, especially when it comes to writing (Aksoy and Cetinkaya, 2025). The in-service training programs usually focus on the assessment strategies or technology adoption and give minimal focus to the in-depth grammatical knowledge (Msamba et al., 2023). Such a deficiency is noteworthy since the grammatical knowledge of teachers is identified as the predictor of instructional quality and student writing have been found to increase more as a result of teaching experience than individually (Troia et al., 2026). Accordingly, the grammatical content knowledge of the teachers might be a severely but insufficiently studied factor in low writing scores in junior high schools (Myhill et al., 2023).

Whereas the methods of grammar teaching and the results of the student writing have been analyzed in various researches, the direct correlation between the grammatical content knowledge

of the teachers and the writing performance of students in the junior high school stage has not been given much attention. Out-of-study literature tends to highlight student-centered interventions, technology application, or feedback without paying enough attention to the teacher knowledge base that informs these interventions (Nguyen et al., 2023). This disparity is a limitation to the capacity of policymakers and Teachers to develop specific interventions focused on the causal factors of poor writing performance (Zhang & Sun, 2022). In the absence of solid proofs connecting grammatical competence of teachers with the writing performance of students, there is a likelihood that the method to improve student writing will be superficial and disjointed (Rao, 2019). Thus, systematic research on how grammatical content knowledge of teachers influences the performance of students in the writing process in junior high schools is required to shape improved practice and enhance writing performance of learners.

## **1.2 Research Objective**

To assess the impact of teachers' grammatical content knowledge on students' writing performance in junior high schools.

## **1.3 Research Question**

What is the impact of teachers' grammatical content knowledge on students' writing performance in junior high schools?

## **2.1 Theoretical Framework**

This study was informed by Pedagogical Content Knowledge (PCK) Theory and Sociocultural Theory of Learning.

### **2.1.1 Pedagogical Content Knowledge (PCK) Theory**

Pedagogical Content Knowledge Theory was introduced by Lee Shulman in 1986 to explain the specialized knowledge teachers require to transform subject matter into forms that are comprehensible to learners. The theory states that effective teaching depends not only on subject knowledge or pedagogy alone, but on the integration of both within instructional practice (Shulman, 1986). In language learning, the content knowledge about grammar needs to be redefined in terms of proper explanations, examples and instructional techniques that are relevant to the cognitive levels of learners (Shulman, 1987). It is especially crucial in the writing lesson, where grammar is viewed as a meaning-making tool instead of a set of detached rules (Myhill et al., 2023). PCK theory thus reveals a theoretical basis of the manner in which the grammatical understanding of the teachers affects the development of the writing among the students (Grossman, 1990). There is a possibility of a teacher who has all grammar knowledge but cannot convey it to others due to the lack of PCK (Ball et al., 2008). In this regard therefore, this theory has a direct implication in research concerning the quality of writing instruction (Kind, 2009).

In the PCK theory, the capability of the teacher to render content knowledge in a way that is reachable to the learners is a key figure in the achievement of learning by the students. This can be applied in teaching grammar whereby the examples, metaphors and writing activities used expose the operation of grammatical structures in real-life writing (Shulman, 1987). It has been demonstrated that when teachers have high grammatical PCK, they are able to foresee potential mistakes made by students and to pro-act to correct any misconceptions (Myhill et al., 2023). These teachers are better at connecting the teaching of grammar to writing assignments of students, thus enhancing the coherence and accuracy (Troia et al., 2026). On the other hand, poor

grammatical PCK means excessive use of drills and superficial correction (Effendi et al., 2017). The PCK theory is used to understand why these strategies do not yield long-term changes in terms of performance in normative writing (Grossman, 1990). The theory therefore places the grammatical knowledge in a pedagogical context as opposed to an abstract one (Ball et al., 2008).

PCK theory also puts emphasis on how teacher judgment can be applied in modifying content so as to suit learners in their developmental stages. The students in the junior high schools need to have a middle between simple sentence structure and long writing and pedagogical change is necessary (Shulman, 1986). The teachers should be aware not only of grammar, but of when and how to present certain grammatical concepts in the context of writing activities (Myhill et al., 2023). Research indicates that teachers who teach sequence grammar teaching with high PCK are efficient in teaching writing at a higher level of complexity (Rao, 2019). In the absence of this integration, the teaching of grammar will be isolated with respect to the result of writing (Ling, 2015). PCK theory describes this disconnection as a malfunction of pedagogical change and not lack of content (Kind, 2009). The theory hence explains the importance of studying grammatical content knowledge in a pedagogical approach (Grossman, 1990).

Besides that, PCK theory focuses on teacher knowledge of student understanding. The knowledge of teachers about the problems of learners in using grammar allows introduction of specific instructional interventions in writing (Ball et al., 2008). Studies have shown that grammatical mistakes in writing usually have conceptual origins as opposed to error of carelessness (Ellis, 1998). High-grammatical PCK teachers identify these confusions correctly and offer remedial feedback that facilitates learning (Myhill et al., 2023). Conversely, teachers who have low levels of PCK pay attention to identifying errors but not explaining them (Effendi et al., 2017). PCK theory therefore explains the variation in the quality of the feedback and quality of instruction (Shulman, 1987). This aspect is particularly applicable to the interpretation of unresolved weaknesses in junior high schools in terms of writing (Troia et al., 2026).

Pedagogical Content Knowledge Theory provides a robust framework for examining how teachers' grammatical knowledge influences students' writing performance. It explains why content knowledge alone is insufficient for effective instruction (Shulman, 1986). The theory situates grammar teaching within instructional decision-making, learner understanding, and writing task design (Myhill et al., 2023). It also clarifies why inadequate grammatical PCK leads to fragmented instruction and weak writing outcomes (Rao, 2019). By foregrounding pedagogical transformation, the theory aligns closely with the study's focus on writing performance (Grossman, 1990). PCK theory therefore offers a strong explanatory perspective for the relationship under investigation (Ball et al., 2008).

### **2.1.2 Sociocultural Theory of Learning**

Sociocultural Theory of Learning was developed by Vygotsky (1978). This theory states that learning occurs through social interaction, language mediation, and culturally situated practices. The theory argues that cognitive development is shaped by participation in meaningful social activities rather than isolated individual processes (Vygotsky, 1978). In writing development, grammar functions as a cultural tool that learners acquire through guided interaction and instructional scaffolding (Lantolf, 2000). Teachers play a central mediating role in helping students internalize grammatical structures through dialogue and modeling (Donato, 1994). Sociocultural theory therefore provides a framework for understanding grammar learning as socially constructed (Swain, 2006). Writing performance reflects the degree to which learners have internalized these

linguistic tools (Ellis, 2003). This makes the theory highly relevant to grammar-based writing instruction (Lantolf & Thorne, 2006).

One of the main ideas of the Sociocultural Theory is the Zone of Proximal Development (ZPD) that helps learners to have better performance when tutored by experts, rather than when learning independently. In the teaching of writing, the teachers scaffold grammatical knowledge by demonstrating the sentence pattern and facilitating corrections (Vygotsky, 1978). It has been found that such scaffolding enhances the skills of students to use grammar within writing (Myhill et al., 2023). The quality of mediation that teachers offer in the ZPD is based on their content knowledge in grammar (Lantolf, 2000). The inability to scaffold effectively by the teachers is hindered by weak grammatical knowledge (Widagsa et al., 2025). The sociocultural theory hence underpins variance in the performance of writing as a product of mediated teaching (Donato, 1994). This gives a direct input in the examination of teaching of grammar in junior high schools (Swain, 2006).

The Sociocultural Theory is focused on language as the mode of teaching and the object of learning. Grammar is learned in form of dialogic interaction and feedback and in form of collaborative writing (Swain, 2006). The teaching capabilities of teachers who have good grammar skills help them to promote effective language use instead of memorizing (Ellis, 2003). Research indicates that working together in writing makes one better at grammar with the help of informed teachers (Khatib & Meihami, 2015). This enhancement is attributed to internalization by sociocultural theory which is a result of social interaction (Lantolf & Thorne, 2006). Interaction cannot be done in isolation without proper grammatical mediation (Donato, 1994). The theory thus emphasises on the role of teacher knowledge in teaching grammar (Vygotsky, 1978).

Feedback is also another mediational tool highlighted in Sociocultural Theory that determines learning. Grammatical development is supported by the provision of corrective feedback, which is contingent, explanatory and dialogic (Ellis, 2003). The knowledge of grammatical content can define the capability of teachers to offer such feedback (Myhill et al., 2023). Studies indicate that grammatical-based feedback results in greater acquisition of writing skills compared to the surface correction (Li & Lin, 2025). This is explained according to sociocultural theory as being guided internalization of linguistic forms (Swain, 2006). Weak grammar teachers also like to offer vague or unclear feedback (Widagsa et al., 2025). The effect of this is insufficient writing enhancement (Donato, 1994). The theory therefore refers to teacher knowledge as a direct relationship to writing outcomes (Lantolf, 2000).

The Sociocultural Theory of Learning can be used to gain an insight into the mediation of writing development in students by teachers through their grammatical content knowledge. It also views grammar learning as a socially mediated and not an individual mental activity (Vygotsky, 1978). The quality of scaffolding, interaction, and feedback depends on the levels of grammatical knowledge of teachers (Myhill et al., 2023). The theory states the reason why writing performance is enhanced with the use of guided practice and dialogue in teaching grammar. It also explains the unremitting writing problems in which there is poor instructional mediation (Ellis, 2003). The Sociocultural Theory thus greatly guides the analysis of grammar and writing performance that is done in this study.

## **2.2 Empirical Review**

Troia, Brehmer, Reichmuth and Glause (2026) evaluated the impact of writing related knowledge among the teachers such as grammatical content knowledge to instructional practices and student

<https://doi.org/10.53819/81018102t4385>

writing results. The research was based on a quantitative correlational design, which incorporated classroom observations, teacher questionnaires, and student writing samples analysis on elementary and lower secondary grades. The grammar knowledge of teachers was assessed with the help of validated content tests, whereas the writing performance of students was determined with the help of the analytic rubrics on sentence structure, grammatical correctness, and coherence. Results showed that teachers who had greater grammatical content knowledge always applied more explicit grammar-writing integration strategies, which were significant predictors of greater student writing scores. Students who were taught by teachers with low grammatical status exhibited systematic mistakes in syntax and constructions of clauses even after regular writing practice. The research also found out that teaching experience on its own could not replace poor grammatical knowledge. The authors suggested enhancing grammar instruction in teacher preparation and lifelong learning with an aim of enhancing the quality of writing teaching.

Myhill, Cremin, and Oliver (2023) assessed the association between the subject content knowledge of teachers taught grammar and the development of students writing behavior by relying on a mixed-method design. Lesson observations, teacher interviews and pre- and post-writing assessment of lower secondary students were used in the study. The function of grammatical knowledge in teachers was operationalized by the capability of teachers to explain grammatical concepts in the writing lessons in a functional manner. It was found that classrooms which had teachers that exhibited great levels of grammatical content knowledge registered significant gains in the sentence variety, accuracy, and rhetorical control of students. Conversely, students who had grammar taught as discrete rules by their teachers recorded very little improvement in the quality of their writing. The results of the qualitative study provided evidence that knowledgeable teachers viewed grammar as a meaning-making tool that helps students to revise and refine their texts better. The analysis presented the suggestion of shifting grammar teaching methods off of the drills and more into writing application in contexts, as well as improving teacher education in functional grammar.

Widaksa, Senom and Hutagalung (2025) explored the teaching methodology of the non-specialist English teachers and the influence of grammatical knowledge on student writing achievement. The qualitative multiple-case study design allowed the researchers to gather data by means of classroom observations, interviewing teacher, and student writing scripts analysis. The results indicated that the out of field teachers had little knowledge about grammatical content and this led to excessive use of textbooks and corrective marking without clarification. The tense errors, the sentence fragments and weak cohesion were very high among students in these classrooms. In comparison, the classes conducted by instructors with better grammar showed better sentence structure and more fluency in writing. In the study, professional development programs that were focused on enhancing the level of grammatical content among non-specialist teachers were advised especially at junior secondary levels.

Rao (2019) conducted an empirical study that investigated the role of grammar teaching in enhancing the writing of the students. The research design was experimental where one group was exposed to grammar instruction that was specifically related to the writing activities and a control group was exposed to the conventional teaching of grammar. The writing performance was evaluated with pre- and post-tests and the emphasis on the grammatical accuracy, the complexity of the sentence and coherence. The results found that students who were introduced to grammar teaching with mediation by the teacher who was well versed in grammar portrayed much better in accuracy and complexity in writing. The control group depicted minimal improvements, and this

was mostly restricted to recalling and not applying the rules. The study suggested grammar instruction to be incorporated in writing pedagogy and that the teachers should get higher levels of training in teaching grammar and its use.

Effendi, Rokhyati, Rachman, Rakhmawati and Pertiwi (2017) identified the practice of grammar teaching and its impact on the written output of students with the help of the descriptive qualitative approach. Classroom observations, Teacher interviews and document analysis of student writing activities were used to collect the data. The researchers discovered that teachers who had a poor background of knowledge in grammatical content focused more on correcting the errors rather than teaching the grammatical error concepts, and as a result, the students made the same mistakes in their writing. Students showed poor sentence boundary and agreement pattern control. On the other hand, the teachers who had better grammatical knowledge gave more explanations that helped students to make better corrections in their writing. The authors suggested curriculum changes that will emphasize more on deep grammatical knowledge in teacher education courses and coordinate grammar learning with the aims of the writing development.

In his study, Ling (2015) examined how explicit and implicit teaching of grammar can influence academic performance of students in writing using a quasi-experimental design. The grammatical competence of teachers was one of the key variables because the level of instructional quality was determined by the capacity to describe grammatical forms in a direct manner. The results revealed that students instructed by teachers who had strong knowledge of grammar content based teaches in explicit instruction conditions had better writing accuracy and syntactic complexity. The results of implicit instruction were lower when the teachers did not have enough skills in the grammatical explanation. It was found that the teacher grammatical competence plays a critical moderating role in grammar instructional effectiveness and it was suggested that improving explicit grammar teaching capabilities of teachers will facilitate development of writing.

Navaz and Sama (2017) explored the perception and practices that teachers had when their teaching was in grammar and its effect on students as it relates to writing. The design followed was a mixed-method design that embraced surveys, classroom observations and writing tests. Findings indicated that there was a strong correlation between grammatical knowledge and writing quality of the teachers and students respectively. The high-grammatical understanding of the teachers translated into automatic incorporation of grammar in the writing tasks that resulted in a higher degree of cohesion and accuracy of the sentence in the student texts. The teachers who had less grammar skills did not explain grammar in writing lessons and this only led to superficial improvement of writing. The research suggested systematic evaluation of grammatical knowledge of teachers and introduction of grammar-writing integration courses into the professional development organization.

Zhang and Sun (2022), created and tested a questionnaire to assess the cognitions of teachers regarding teaching grammar and related them to instruction and outcomes of student writing. Through structural equation modeling the study established that the grammatical content knowledge amongst teachers had a significant predictive role on their instructional choices which in turn influenced the writing performance of the students. Students whose teachers had high grammar-related cognitions created their writing with the lower number of syntax errors and more coherent text. It was emphasized in the research that beliefs were not adequate without concrete grammatical knowledge. The authors suggested policy interventions to focus on both the content mastery and teacher cognition in grammar school.

Reza Adel and Azari Noughabi (2023) examined the development of pedagogical content knowledge, including grammar, among pre-service teachers and its effect on learners' writing. The study employed a longitudinal case study approach involving lesson analysis and student writing evaluations. Findings showed that as teachers' grammatical content knowledge improved, their students demonstrated better sentence control, reduced grammatical errors, and improved text organization. The study emphasized that grammatical content knowledge must be explicitly developed during teacher training rather than assumed. The authors recommended enriched teacher education programs that integrate grammar, pedagogy, and writing instruction.

Zheng, Miao, Dong and Yuan (2023) conducted a meta-analysis examining the relationship between grammatical knowledge and literacy outcomes, including writing performance. Although the study focused broadly on language skills, findings consistently showed that grammatical knowledge had a strong effect size on writing accuracy and coherence across educational levels. The analysis suggested that instructional quality, particularly teacher grammatical competence, mediated this relationship. The study recommended prioritizing grammar knowledge development in teachers as a foundational strategy for improving student writing outcomes across schooling levels.

### **3.0 Methodology**

This study adopted a desktop review research design in which the review was guided by a positivist research philosophy, emphasizing objective analysis and systematic synthesis of existing empirical evidence on grammar instruction and writing outcomes. Relevant literature was identified through an extensive search of academic databases, peer-reviewed journals, scholarly books, and education research reports. Key search terms included teachers' grammatical content knowledge, grammar instruction, writing performance, pedagogical content knowledge, and junior high school writing. Inclusion criteria focused on empirical studies addressing teacher grammar knowledge, instructional practices, and student writing performance at junior or lower secondary school levels. The selected studies were screened for relevance, methodological rigor, and contribution to understanding the relationship between grammatical content knowledge and writing achievement. Through critical analysis and synthesis of the reviewed literature, the study established prevailing patterns, instructional implications, and existing research gaps to inform future empirical inquiry and pedagogical interventions aimed at improving writing performance in junior high schools.

### **4.0 Findings and Discussion**

In the evaluated empirical researches, it has been found that grammatical content knowledge among the teachers is a decisive indicator in predicting the performance of students in their writing at the junior high and lower secondary levels. Quantitative and mixed-methods results indicated that students who were taught by teachers with strong grammatical knowledge had a much higher score in grammatical accuracy, sentence structure, and coherence than their colleagues (Troia et al., 2026; Myhill et al., 2023). The results of the experiment also proved that grammatical competence among teachers was more effective in explaining differences in student writing results than being in the teaching field alone, which showed that tenure in the profession did not offset poor grammar knowledge (Rao, 2019). Meta-analysis also proved that the grammatical knowledge effect size on writing accuracy and cohesion was strong at all educational levels, especially when the quality of instruction was high (Zheng et al., 2023). Together, these studies revealed that grammatical content knowledge is neither an auxiliary skill nor a resource of instruction but underlining writing success.

The review also found that the relationship between grammatical knowledge of teachers and performance of writing in the students was mediated by instructional methods. Educators who scored highly in grammatical content knowledge always incorporated grammar teaching in real writing tasks and allowed students to use grammatical concepts in writing drafts and revision (Myhill et al., 2023; Navaz & Sama, 2017). Conversely, it was reported that teachers that had a poor grammatical comprehension used single grammar activities, textbook tasks, and superficial corrective interventions, which did not turn into better writing outcomes (Effendi et al., 2017). It was experimentally demonstrated that the group of students who were explicitly taught grammar associated with writing tasks realized better improvements in sentence complexity and coherence than those who were taught grammar using conventional rule-based approaches (Rao, 2019). These results highlighted the fact that the teaching of grammar is equally important as the content taught.

The other important discovery was the functionality and responsiveness of the teachers to explain grammar concepts. Research indicated that teachers who had good grammatical knowledge gave explanations that made students comprehend how grammatical decisions influence meaning, clarity, and rhetorical impact in writing (Myhill et al., 2023). Evidence in the classroom has shown that these types of explanations facilitated the revision process of students, which resulted in fewer syntactic errors and better sentence control (Troia et al., 2026). On the other hand, those teachers who had low grammatical content knowledge were oriented more on correction of the errors rather than correcting the misconceived ideas, which led to recurring errors in writing activities (Effendi et al., 2017). The longitudinal results also revealed that the positive changes in grammatical knowledge of the teachers over the years were correlated with quantifiable changes in the writing structure and accuracy of the students (Adel & Noughabi, 2023). These findings singled out functional grammatical explanation as a key linkage between teacher knowledge to writing performance.

Another important difference in writing results that was determined by the empirical review concerned the specialization and professional preparation of teachers. The research on non-specialist or out-of-field teachers of English always revealed the worse outcomes of grammatical content knowledge, which limited the quality of instruction and adversely influenced the writing of the students (Widagsa et al., 2025). The occurrence of tense errors, sentence fragments as well as weak cohesion was high among students in these classrooms as opposed to those taught by grammar proficient teachers. Teacher education research evidence also indicated that grammatical content knowledge did not naturally evolve with teaching experience but had to be trained and reflectively cultivated (Adel & Noughabi, 2023). These results underlined the relevance of the focused professional development and pre-service training to enhance the grammar-writing teaching in junior secondary levels.

Besides, the review showed the grammatical content knowledge of teachers in interactions with beliefs and cognitions affected instructional choices and writing achievements. The results of structural equation modeling demonstrated that the grammar-related cognition of teachers had a positive impact on classroom practices only when it was backed by the sound grammatical knowledge (Zhang and Sun, 2022). The content and grammar teachers found it difficult to apply effective grammar-writing integration, and the result of such integration was superficial improvement of writing among students (Navaz & Sama, 2017). In comparison, educators who possessed solid grammatical knowledge as well as positive beliefs about instruction provided more favorable learning conditions that taught syntactic risk-taking and revision, which led to a

reduction in writing errors and increased textual coherence (Myhill et al., 2023). The identified finding strengthened the necessity to synchronize teacher knowledge, beliefs, and pedagogy to realize long-term writing improvement.

Finally, it was established that strengthening teachers' grammatical content knowledge offers a high-impact pathway for improving writing performance in junior high schools. Longitudinal, experimental, and meta-analytic studies all converged on the conclusion that grammatical knowledge exerts its strongest influence on writing outcomes when mediated through informed instructional practice (Troia et al., 2026; Zheng et al., 2023). The reviewed studies consistently recommended curriculum reforms, enhanced teacher education, and continuous professional development programs that prioritize grammar–writing integration (Effendi et al., 2017; Adel & Noughabi, 2023). Overall, the literature established that persistent weaknesses in students' writing performance cannot be effectively addressed without deliberate investment in teachers' grammatical content knowledge as a core component of instructional quality.

## **5.0 Conclusion**

Enhancing the writing performance of students in junior high schools can be basically achieved by enhancing grammatical content knowledge of teachers as opposed to using gradual modification of teaching techniques. The writing problems witnessed at this stage are not just the issues that are learner based but are the problems of the instructional capacity as it is connected to the way grammar is conceptualized and taught by educators. This suggests that structural flaws of writing achievements will tend to remain unless grammar competence is considered as one of the fundamental professional values of language instructors. As a result, the improvement of the writing standards should go beyond the superficial solutions, and embrace the quality of the teacher knowledge that can support classroom practice. Moreover, the most successful grammar teaching should be placed as an instrument of meaning-making in a context of writing as opposed to a body of prescriptive rules. The evidence reviewed by supports the opinion that grammar is beneficial to the quality of writing only when the teachers have the conceptual knowledge to incorporate grammatical explanations into the real writing assignments. The conclusion is that integration of grammar-writing instead of covering grammar separately should be the priority of pedagogical reforms. Teaching strategies that do not integrate grammar with writing would not produce lasting positive effect on the performance of writing irrespective of the amount of writing practice.

The review also supports the conclusion that teaching experience alone does not guarantee effective writing instruction in the absence of strong grammatical content knowledge. While experience may improve classroom management and familiarity with curriculum demands, it does not automatically enhance teachers' ability to explain grammar conceptually or support students' grammatical development in writing. This suggests that professional competence in writing instruction should be defined by demonstrated grammatical understanding rather than years of service. Teacher evaluation and development frameworks should therefore emphasize content mastery alongside pedagogical skill. Disparities in students' writing performance across classrooms are strongly linked to differences in teacher preparation and specialization. Teachers who enter classrooms without sufficient grammatical training are structurally constrained in their ability to support writing development, particularly in contexts where they teach English out of field. This leads to the conclusion that equitable writing outcomes require more consistent and rigorous preparation in grammar across teacher education pathways. Without addressing these

preparation gaps, systemic inequalities in writing achievement are likely to persist across schools and learner populations.

Moreover, long-term improvement in students' writing performance depends on deliberate institutional investment in teachers' grammatical knowledge through curriculum design, teacher education, and continuous professional development. Grammar competence should be treated as an evolving professional capacity that requires ongoing reinforcement rather than a static qualification acquired at entry into the profession. This conclusion underscores the need for policy-level commitment to sustained teacher learning as a prerequisite for improving writing instruction and learner outcomes in junior high schools.

## **6.0 Recommendations**

In light of the findings, the study make the following recommendations.

Teacher education institutions should strengthen the grammatical content components within pre-service language teacher preparation programs. Grammar should not be treated as a peripheral subject limited to theoretical coverage; instead, it should be embedded within writing pedagogy courses to ensure that future teachers understand how grammatical structures function within authentic texts. Universities and colleges preparing junior high school teachers should incorporate diagnostic grammar assessments, functional grammar modules, and writing–grammar integration workshops as core requirements. By ensuring that teachers graduate with strong grammatical mastery and the ability to apply it instructionally, foundational weaknesses in writing instruction can be reduced before teachers enter classrooms.

Ministries of education and school leadership structures should implement systematic professional development programs focused specifically on grammar–writing integration. In-service training should go beyond general literacy workshops and instead provide structured opportunities for teachers to deepen their grammatical understanding, analyze student writing samples, and practice delivering explanatory feedback. Such programs should include collaborative lesson planning, peer observation, and guided reflection sessions that help teachers connect grammar instruction to measurable writing outcomes. Continuous professional development in grammar instruction should be institutionalized rather than offered as occasional short-term interventions.

Curriculum developers should redesign junior high school language syllabi to explicitly link grammar objectives with writing competencies. Curriculum frameworks should clearly specify how grammatical concepts progress across grade levels and how they support the development of increasingly complex writing tasks. Assessment rubrics should reflect this integration by evaluating not only content and organization but also the purposeful use of grammatical structures. When curriculum and assessment systems emphasize grammar as a writing resource rather than isolated rules, teachers are more likely to align their instruction with meaningful writing development goals.

Schools should establish internal instructional support systems that promote reflective practice around grammar teaching. Departmental meetings and professional learning communities can be structured to focus on analyzing student writing patterns, identifying recurring grammatical weaknesses, and discussing effective instructional responses. Mentorship programs pairing experienced grammar-proficient teachers with those needing support can strengthen instructional consistency. By creating school-based cultures that value grammatical precision and explanatory feedback, institutions can reinforce sustained improvements in writing instruction.

Policy makers should develop teacher competency standards that explicitly recognize grammatical content knowledge as a core dimension of professional proficiency in language teaching. Certification and promotion criteria should include demonstrated ability to explain grammatical concepts functionally and to support writing development effectively. Incorporating grammar-focused indicators into teacher appraisal systems can incentivize ongoing learning and signal institutional commitment to writing quality. Such policy alignment ensures that grammatical competence is not optional but recognized as central to effective writing instruction.

Further research should be encouraged to examine context-specific strategies for strengthening teachers' grammatical content knowledge and measuring its long-term impact on writing achievement. Longitudinal and intervention-based studies can provide deeper evidence on how targeted grammar-focused professional development translates into improved writing outcomes over time. Educational stakeholders should support collaborative research partnerships between schools and universities to test and refine grammar–writing instructional models. Sustained inquiry and evidence-based innovation will ensure that recommendations evolve responsively and contribute meaningfully to raising writing standards in junior high schools.

## REFERENCES

- Aksoy, H., & Çetinkaya, Y. B. (2025). Investigating the Association between Technological Pedagogical Content Knowledge (TPACK) and Self-Efficacy among Turkish EFL Prep School Teachers. *Contemporary English Language Studies*, 1(1), 1-21.
- Al-Khresheh, M. H., & Orak, S. D. (2021). The place of grammar instruction in the 21st century: Exploring global perspectives of English teachers towards the role of teaching grammar in EFL/ESL classrooms. *World Journal of English Language*, 11(1).
- Al-Zyoud, A. A., Al Jamal, D., & Baniabdelrahman, A. (2017). Mind mapping and students' writing performance. *Arab World English Journal (AWEJ) Volume*, 8.
- Andargie, A., Amogne, D., & Tefera, E. (2025). Effects of project-based learning on EFL learners' writing performance. *PloS one*, 20(1), e0317518.
- Ball, D. L., Thames, M. H., & Phelps, G. (2008). Content knowledge for teaching: What makes it special? *Journal of Teacher Education*, 59(5), 389–407.
- Beslagic, D. (2025). Lacking bridges and apprehensive tensions: The impact of emotions and contextual factors on German L3 teachers' perceptions and grammar teaching practices. *Language Teaching Research*, 13621688251313984.
- Deng, Y., & Sitthitikul, P. (2025). The Effects of the Guided Dialogic Peer Feedback-Based Writing Instruction on Chinese EFL Students' Writing Performance in an Integrated Blended Learning Environment. *REFlections*, 32(1), 1-27.
- Donato, R. (1994). Collective scaffolding in second language learning. In J. P. Lantolf & G. Appel (Eds.), *Vygotskian approaches to second language research* (pp. 33–56). Ablex.

- Duong, T. N. A., & Chen, H. L. (2025). An AI chatbot for EFL writing: Students' usage tendencies, writing performance, and perceptions. *Journal of Educational Computing Research*, 63(2), 406-430.
- Effendi, M. S., Rokhyati, U., Rachman, U. A. M., Rakhmawati, A. D., & Pertiwi, D. (2017). A study on grammar teaching at an English education department in an EFL context. *International Journal on Studies in English Language and Literature*, 5(1), 42-46.
- Ellis, R. (1998). Teaching and research: Options in grammar teaching. *TESOL Quarterly*, 32(1), 39-60.
- Ellis, R. (2003). *Task-based language learning and teaching*. Oxford University Press.
- Grossman, P. L. (1990). *The making of a teacher: Teacher knowledge and teacher education*. Teachers College Press.
- Ilimi, M. R., Drajadi, N. A., & Putra, K. A. (2023). Linking the theory and practice: Self-reflections on technology-integrated English grammar teaching. *Reflective Practice*, 24(2), 125-136.
- Jansen, T., Höft, L., Bahr, J. L., Kuklick, L., & Meyer, J. (2025). Constructive feedback can function as a reward: Students' emotional profiles in reaction to feedback perception mediate associations with task interest. *Learning and Instruction*, 95, 102030.
- Khatib, M., & Meihami, H. (2015). Languaging and writing skill: The effect of collaborative writing on EFL students' writing performance. *Advances in Language and Literary Studies*, 6(1), 203-211.
- Kind, V. (2009). Pedagogical content knowledge in science education: Perspectives and potential for progress. *Studies in Science Education*, 45(2), 169-204.
- Lantolf, J. P. (2000). *Sociocultural theory and second language learning*. Oxford University Press.
- Lantolf, J. P., & Thorne, S. L. (2006). *Sociocultural theory and the genesis of second language development*. Oxford University Press.
- Li, X., & Lin, D. T. A. (2025). Impact of learner-centred feedback on developing student feedback literacy and EFL writing performance. *Cogent Education*, 12(1), 2593031.
- Ling, Z. (2015). Explicit grammar and implicit grammar teaching for English major students in university. *Sino-US English Teaching*, 12(8), 556-560.
- Msamba, E. M., Msuya, E. A., & Anangisye, W. A. (2023). The Impact of In-Service Education and Training on Teachers' Learning: Perspectives from English Foreign Language Teachers in Tanzania. *Education Research International*, 2023(1), 6135444.
- Myhill, D., Cremin, T., & Oliver, L. (2023). Writing as a craft: Re-considering teacher subject content knowledge for teaching writing. *Research Papers in Education*, 38(3), 403-425.
- Navaz, A. M. M., & Sama, F. R. F. (2017). Teaching grammar in the English language classroom: perceptions and practices of students and teachers in the Ampara district.
- Nguyen, D. T., Hitendra, P., & Andy, Y. (2023). Understanding teachers' knowledge and skills via technological pedagogical and content knowledge framework. *English Language Teaching*, 16(6), 91-101.

- Ong, Q. K. L., & Annamalai, N. (2024). Technological pedagogical content knowledge for twenty-first century learning skills: The game changer for teachers of industrial revolution 5.0. *Education and information technologies*, 29(2), 1939-1980.
- Pitura, J., Kaplan-Rakowski, R., & Asotska-Wierzba, Y. (2025). The VR-AI-assisted simulation for content knowledge application in Pre-service EFL teacher training. *TechTrends*, 69(1), 100-110.
- Rao, P. S. (2019). The role of grammar in English language teaching (ELT) techniques. *Research Journal of English*, 4(2), 239–249.
- Reza Adel, S. M., & Azari Noughabi, M. (2023). Developing Pedagogical Content Knowledge (PCK) through an enriched teacher education program: cases of four Iranian pre-service EFL teachers. *Pedagogies: An International Journal*, 18(3), 352-373.
- Sh, G. (2026). Innovative Methods In Teaching English Grammar To Non-Native Speakers. *Tadqiqotlar*, 77(3), 132-137.
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4–14.
- Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1–22.
- Swain, M. (2006). Languaging, agency and collaboration in advanced second language proficiency. *Applied Linguistics*, 27(3), 451–465.
- Troia, G. A., Brehmer, J. S., Reichmuth, H. L., & Glause, K. (2026). The Nature of Elementary Writing Teachers’ Instructional Practices and the Effects of Experience, Professional Preparation, Teaching Efficacy Beliefs, Knowledge, and Ability on Their Practices. *Scientific Studies of Reading*, 1-30.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Widagsa, R., Senom, F., & Hutagalung, F. D. (2025). Teaching out-of-field: exploring the non-specialist English language teachers’ knowledge base and practices. *Cogent Education*, 12(1), 2514914.
- Yang, G., Li, J. W., Zhou, W., Zheng, Y. Q., & Zeng, Q. F. (2025). An empirical study of a data-driven personalized diagnostic feedback strategy to enhance Chinese primary school pupils’ writing performance. *Interactive Learning Environments*, 33(1), 631-657.
- Zhan, Y., & Teng, M. F. (2025). Assessing English writing self-efficacy beliefs, self-regulation, and performance through asynchronous computer-mediated feedback and face-to-face peer feedback. *Educational Assessment*, 30(1), 4-20.
- Zhang, L. J., & Sun, Q. (2022). Developing and validating the English teachers’ cognitions about grammar teaching questionnaire (TCAGTQ) to uncover teacher thinking. *Frontiers in Psychology*, 13, 880408.
- Zheldibayeva, R. (2025). GenAI as a learning buddy for non-English majors: Effects on listening and writing performance. *Educational Process: International Journal (EDUPIJ)*, 14(1), 1-16.

Zheng, H., Miao, X., Dong, Y., & Yuan, D. C. (2023). The relationship between grammatical knowledge and reading comprehension: A meta-analysis. *Frontiers in psychology, 14*, 1098568.