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Semantic Mapping as a Pre-Writing Strategy in the EFL Classroom: Voices from Teachers and Students

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Abstract

Semantic mapping is a widely recognized strategy in English language learning, particularly in the development of writing skills. Despite its proven effectiveness, limited attention has been given to its use at the pre-writing stage, especially in paragraph writing. This study aims to explore the perspectives of both teachers and students on the application of semantic mapping during the pre-writing phase and to identify the benefits and challenges associated with its implementation. A descriptive qualitative method was employed, involving two teachers and seventeen students from Muhammadiyah Junior High School in Gorontalo City. The findings revealed that both teachers and students held positive views about using semantic mapping before writing. They reported various benefits, although they also faced several challenges, particularly related to time constraints and students' preparedness. The results of this study suggest that semantic mapping remains a valuable instructional tool that can be further developed and effectively integrated with emerging educational technologies.

Keywords: EFL Teachers and Students' Perception, Pre-Writing Process Semantic Mapping Strategy.

Introduction

Writing is one of the most essential productive skills that English language learners need to master. In the classroom context, writing not only involves technical ability but also serves as a means to express ideas and organize information logically and coherently (Naghdipour, 2016; Nourazar et al., 2022). However, many students and teachers continue to face challenges in developing students' writing abilities and transforming their thoughts into well-structured texts that follow accepted conventions. One key source of difficulty is the lack of attention to the pre-writing stage (Bui et al., 2023; Mamad & Vígh, 2022). In fact, equipping learners with the necessary knowledge and technical skills before writing is a crucial part of the writing process itself. Therefore, an effective instructional approach is needed to address this gap. One widely used pre-writing strategy for generating and organizing ideas is Semantic Mapping. Semantic mapping is a widely used strategy in writing instruction. It emphasizes the use of visual representations to help students connect main ideas with supporting details (Al-Badou et al., 2020; Al-Khazaali, 2020; Fredricks, 2000), thereby enabling them to construct coherent and focused paragraphs. In practice, this strategy stimulates critical thinking (Anderson et al., 2023), promotes exploration of meaning (Jiang, 2002), and clarifies conceptual relationships that can be effectively integrated into students' writing. Semantic mapping is particularly effective during the pre-writing stage, especially during brainstorming, as it facilitates students' ability to organize and develop their ideas into a structured written form (Al-Khazaali, 2020; Daud et al., 2025). In

addition, teachers can use this strategy to encourage interaction and discussion, both among students and between students and teachers. A number of studies have investigated the use of semantic mapping in English language learning, particularly in its application to writing and speaking skills (Ehrenworth, 2025; Patel, 2025; Razouki & Muter, 2024; Wang et al., 2025). Many researchers have examined the impact of this strategy on writing performance. However, there has been limited exploration of teacher and student perceptions regarding the use of semantic mapping during the pre-writing stage, especially in the context of English instruction at the junior high school level. Yet, these perceptions are essential to understanding the strategy's relevance and effectiveness (Insyirah & Ernidawati, 2014; Syathroh, 2020). Without a thorough understanding of how both teachers and students perceive this approach, the implementation of writing instruction may fail to meet learners' needs, particularly at the secondary level where activating prior knowledge is crucial. At the junior high school level, writing coherently and systematically remains a significant challenge for both teachers and students. Teachers often struggle to motivate students to actively explore and generate ideas, while students frequently require guidance and support in conceptualizing and organizing their thoughts before writing. This situation is also evident at Muhammadiyah Junior High School (SMP) in Gorontalo City, where writing English paragraphs remains a key concern for both teachers and students, given that writing is often considered the most difficult language skill to master. Given the importance of activating and organizing ideas before the actual writing process begins, semantic mapping serves as a vital pre-writing tool. Therefore, this study seeks to explore English teachers' and students' perceptions of semantic mapping in writing instruction, particularly during the pre-writing phase. The main objective is to understand how this strategy is perceived and implemented by both groups prior to writing. By gaining insight into their experiences, this study aims to contribute to the refinement of writing instruction strategies that are better aligned with students' needs. Additionally, the findings may serve as a valuable reference for English teachers in designing instructional materials—especially writing tasks—based on the effective integration of semantic mapping. Based on the background above, the research is guided by the following questions:

1. What are the perceptions of teachers and students regarding the use of semantic mapping in English writing instruction?
2. What do teachers and students experience as the benefits and challenges in applying semantic mapping during writing activities?

Theoretical Framework

EFL Writing Instruction

EFL writing, or writing in English as a Foreign Language, encompasses more than the mechanical act of sentence construction (Keller et al., 2024); it is a multifaceted process that requires learners—whose first language is not English and who typically reside in non-English-speaking contexts—to engage with the language at both linguistic and cognitive levels (Pattanasuwong, 2015). Scholars emphasize that EFL writing is a dynamic and purposeful activity that involves articulating ideas, logically organizing information, and communicating effectively tailored to specific audiences and contexts (Jusslin & Widlund, 2024; Werdiningsih et al., 2024). As a core component of academic achievement, EFL writing fosters linguistic awareness and supports broader foreign language development by integrating reading, thinking, and communication skills (Zipke, 2008).

From a cognitive and pedagogical standpoint, the development of writing proficiency in EFL contexts involves a range of interrelated processes including planning, drafting, revising, editing, and, in some instructional models, publishing (Anderson et al., 2023). Successful writing performance hinges on both linguistic competence—such as grammar, vocabulary, and genre knowledge—and strategic competence, including the ability to monitor progress, solve problems, and adapt to writing demands. Learners' proficiency is further influenced by individual variables, such as metacognitive awareness, motivation, and self-regulation, as well as external instructional factors, including teaching strategies, the nature and timeliness of feedback, and the integration of digital tools (Roopha & Patchainayagi, 2024). However, EFL students often encounter persistent challenges, including limited vocabulary and grammatical control, writing anxiety, and difficulties in generating and organizing ideas. In response, scholars advocate for targeted pedagogical interventions that emphasize Semantic Mapping strategy training and scaffolded support, enabling learners to navigate the complexities of writing and become more autonomous and effective writers.

Semantic Mapping as writing Strategy

Semantic Mapping is widely recognized as both a cognitive and instructional strategy that visually illustrates the relationships among words, concepts, and ideas—most commonly through diagrams or graphic organizers. This approach is grounded in the theory that learning is enhanced when information is meaningfully organized and visually represented. Scholars define semantic mapping as a tool for structuring and displaying knowledge to reveal conceptual connections, thereby facilitating vocabulary development, reading comprehension, and long-term memory retention. According to Heimlich and Pittelman (1986), semantic mapping involves graphic displays that visually depict how words and concepts are related through a structured network of meaning, enabling learners to grasp complex associations more intuitively. Similarly, Antonacci and O'Callaghan (2011) highlight that semantic maps help students visually categorize vocabulary and recognize hierarchical and associative relationships, thereby fostering a deeper and more lasting understanding of content.

Beyond its linguistic benefits, semantic mapping also plays a pivotal role in promoting active engagement (Bellegarda, 2007), learner motivation (Buitelaar, 2010), and creative thinking. As students construct their visual representations of knowledge, they are encouraged to participate actively in the learning process, which promotes a sense of ownership and autonomy (Antonacci & O'Callaghan, 2011). Furthermore, this strategy supports the development of higher-order thinking skills by guiding students to identify patterns, classify information, and synthesize new ideas based on existing knowledge. Faruk and Aturahma (2023) underscore that semantic mapping enhances students' ability to connect prior knowledge with new information, making it particularly effective for scaffolding complex cognitive tasks in language learning contexts. In the context of writing instruction, semantic mapping has been increasingly acknowledged as an effective pre-writing strategy that facilitates idea generation, organization, and content development (Al-Badou et al., 2020; Husnulhanifah & Laili, 2023; Sabbah, 2020). The pre-writing stage is critical in the writing process, as it activates background knowledge, stimulates thinking, and provides a framework for students to plan their writing systematically. Semantic mapping, when applied during this phase, enables learners to visually brainstorm and structure their thoughts before composing a text.

Perception in the Writing Instructions Process

One of the most important factors in assessing successful learning is viewing it from the perspectives of both teachers and students. Perception is a realistic picture experienced by a person, involving the interpretation of stimuli received through the five senses and then processed based on each individual's knowledge and experience (Tsao, 2024; Zahro & Rachmawati, 2021). In the context of writing learning, teacher and student perceptions regarding the process or stages, as well as the use of learning methods and media, play a crucial role in determining the success of the writing learning process itself (Roopha & Patchainayagi, 2024). Teachers who have a positive attitude toward a particular learning model, approach, strategy, or technique, specifically writing learning in this study, tend to use the strategy or media consistently, creatively, and adaptively according to student needs. On the other hand, students who feel happy and comfortable and experience positive effects from a particular learning strategy will be more prominent in their participation and interaction in class. Students will be more motivated, and learning objectives will be more easily achieved.

Teacher perception is key in determining the direction of learning when a strategy is implemented (Zahro & Rachmawati, 2021), in this context, semantic mapping, in the writing learning process in the classroom. Integrating this strategy into students' writing stages certainly provides benefits in planning, implementation, and ultimately, evaluation of the learning itself. Teachers who fully understand the concept of this strategy will be better able to provide guidance and direct students in developing ideas before writing paragraphs, while also creating an open space for participation and interaction between the teacher and fellow students. Similarly, student perception is also an important indicator in determining whether the implemented strategy receives a positive response (Alharthi, 2021). Students who perceive semantic mapping as helpful in developing their writing tend to demonstrate more structured writing performance. Therefore, exploring both sides will provide a comprehensive picture of the extent to which semantic mapping is accepted practically in the classroom and also serve as an important basis for instructional decision-making that is oriented towards the needs of the students themselves.

Method

Research Design

This study employs descriptive qualitative methods (Maher, 2018) to explore the perceptions of teachers and students regarding the use of semantic mapping in teaching English paragraph writing, particularly as a strategy in the pre-writing stage. This approach was chosen because it aligns with the objectives and formulation of this research question, namely, to understand the phenomenon naturally within the context of writing learning in the classroom.

Research Subjects

The research subjects consisted of two English teachers and 17 students at Muhammadiyah Junior High School in Gorontalo City, Indonesia, who had implemented semantic mapping in writing activities. Subjects were selected purposively, considering teachers with experience teaching writing and students who had participated in learning with the semantic mapping strategy.

Technique of Collecting Data

Data were collected through semi-structured interviews with teachers and a perception questionnaire was distributed to students via Google Forms to explore their perceptions, experiences, and views on the use of semantic mapping. The following is a list of questions and questionnaires used in this study.

Table 1. English Teacher Interview Questions List

No.	Main Questions	Probing Questions (Follow-up)
1	What do you know about semantic mapping?	Where did you learn about this technique? Have you ever attended a training related to it?
2	How do you implement semantic mapping in writing instruction?	At which stage do you use it (pre-writing, writing, or revising)?
3	In your opinion, what are the benefits of semantic mapping for students in writing?	Does it help students develop ideas and organize the structure of their writing?
4	Have you observed any changes in students' writing quality after using semantic mapping?	Can you provide an example?
5	What challenges or obstacles do you face in implementing this technique?	Are these related to time constraints, student understanding, or other factors?
6	How do students respond to the use of semantic mapping in writing class?	Do they seem enthusiastic, confused, or helped by it?
7	In your opinion, how does semantic mapping compare to other pre-writing strategies?	Is it more effective or otherwise?

Table 2. Student Perception Questionnaire

No.	Statement	1	2	3	4
1	Semantic mapping helps me understand the topic of the writing.				
2	Semantic mapping helps me develop ideas.				
3	I find it easier to write after using semantic mapping.				
4	I am interested in using semantic mapping in future writing lessons.				
5	The teacher explained how to use semantic mapping in a clear and concise manner.				

Data Analysis Technique

Data analysis was conducted qualitatively through the stages of data reduction, data presentation, and conclusion drawing, as proposed by Miles and Huberman (1994). The analysis process was conducted continuously from the beginning of data collection, with an emphasis on identifying key themes, including positive and negative perceptions, perceived benefits, implementation challenges, and the impact of using semantic mapping on students' writing processes. The questionnaire data analysis was then tabulated, and the percentage and frequency of student responses were calculated. Student responses were then visualized in diagrams and continued with descriptive narratives to provide a more comprehensive understanding.

Results and Discussion

Results

English Teachers' Perceptions of the Use of Semantic Mapping in Writing Instruction

Data on teacher perceptions were obtained through separate interviews with two English teachers at Muhammadiyah Junior High School in Gorontalo City. The interviews were conducted based on a structured interview guide developed as the research instrument. The first question focused on the teachers' understanding of semantic mapping. Based on the interview responses, both teachers demonstrated a sound knowledge of the semantic mapping concept, particularly concerning teaching English writing. Teacher 1 (T1) reported that their understanding originated from a sharing session during the Subject Teachers' Forum (MGMP). In contrast, Teacher 2 (T2) stated that their knowledge was gained through discussions with fellow English teachers and from reading relevant literature. The following are excerpts from their responses:

> ***T1:*** *"I once attended an MGMP session where one of the materials introduced this strategy. Since then, I've been interested in it and have continued applying it in my teaching."*
>
> ***T2:*** *"Several times I had discussions with other English teacher colleagues about this. Besides that, I also deepened my understanding by reading some research findings."*

The next data concerned the implementation of semantic mapping in writing instruction. Both teachers reported using semantic mapping during the pre-writing phase, though with slightly different approaches. T1 guided students in creating maps with main ideas and subtopics, whereas T2 initiated class discussions before asking students to create semantic maps individually or in groups. Both approaches were considered effective for activating the writing process, particularly in helping students overcome writer's block—an issue frequently observed when students are asked to write even a single paragraph. T1 stated, *"I usually give them a specific topic and guide the students through the process."* While T2 explained, *"I typically begin with a discussion on a topic, and then I ask the students to create their own semantic maps."*

The following interview question explored the perceived benefits of semantic mapping in writing instruction. Both teachers provided insightful responses, highlighting that semantic mapping supports systematic thinking, enhances creativity, and provides clear direction in writing. T1 emphasized the role of the strategy in idea organization and minimizing confusion, while T2 noted the increase in students' confidence and the improved structure of their writing. The following quotes illustrate their responses:

> ***T1:*** *"The benefit I notice is the organization of ideas. By helping them create maps, their ideas become more structured and students become more focused."*
>
> ***T2:*** *"The discussions and interactions before writing impact their confidence, and their writing appears more organized."*

The next set of responses focused on the teachers' perceptions of how semantic mapping affects the quality of student writing. Both teachers acknowledged improvements in the quality of students' writing after using semantic mapping, although the students were still at the paragraph-writing stage. T1 observed that the paragraphs became more focused and the ideas flowed more logically, while T2 highlighted improvements in the use of transition sentences and overall coherence. These findings suggest that semantic mapping contributes positively to textual cohesion and coherence—two key elements of academic writing.

Another interview theme involved the challenges teachers faced when implementing semantic mapping in the classroom. The two teachers reported distinct challenges, as shown in the following excerpts:

> **T1:** "I feel the need for more time when applying this strategy with my students. Due to time constraints, I often have to guide them with prompting questions so they can imitate the structure in their writing."
>
> **T2:** "For me, the challenge lies in the lack of readiness among some students, which affects the flow of discussion and interaction in the classroom. It becomes more problematic when unprepared students end up in the same group."

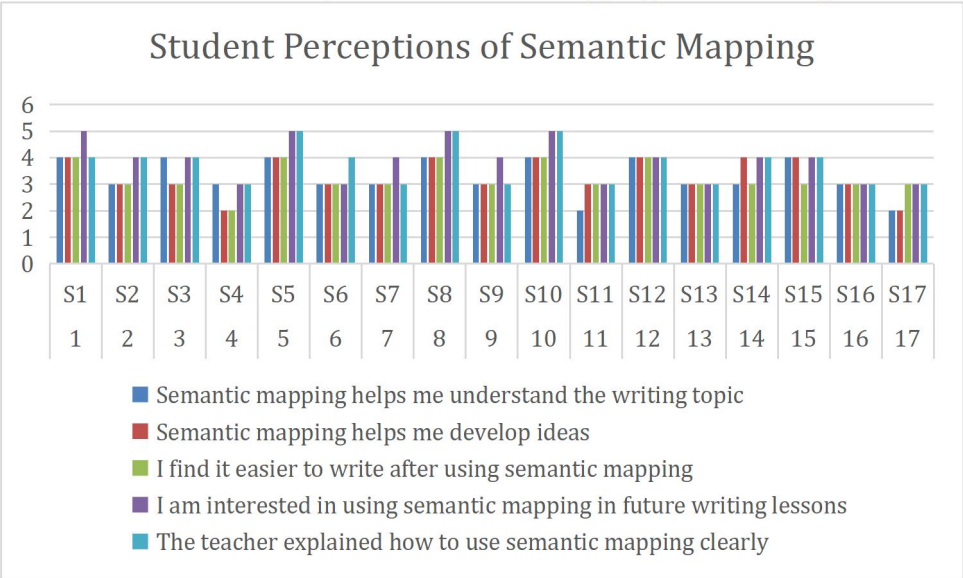
These findings reveal that, although semantic mapping is a beneficial strategy, its successful implementation is influenced by time availability and students' preparedness. Further data related to students' responses toward the use of this strategy, as reported by the teachers. Both T1 and T2 indicated that students generally responded positively. T1 noted that students felt supported because they received clear guidance on what to do and where to begin. T2 observed some initial hesitation, but students gradually became more enthusiastic as they became familiar with the technique. This indicates that while semantic mapping is generally well-received by students, it requires an adaptation period before they can fully engage with the strategy.

The final part of the interview addressed the teachers' assessments of semantic mapping in comparison to other pre-writing strategies. Both T1 and T2 considered semantic mapping to be a distinctive and advantageous approach. T1 highlighted its flexibility and its suitability for students with visual learning preferences, whereas T2 emphasized that semantic mapping facilitates clearer idea exploration compared to conventional brainstorming. These insights reinforce semantic mapping as an interactive pre-writing strategy that not only supports idea elaboration but also accommodates differentiated learning styles aligned with students' needs.

Students' Perceptions of Semantic Mapping as a Pre-Writing Strategy in English Language Classrooms

Data on students' perceptions were collected through a questionnaire distributed via Google Forms. The perception questionnaire used in this study is presented in the following diagram:

Table 3. Students' Perception of Semantic Mapping in Pre-Writing Activities



Understanding of the Topic and Idea Development

In general, students responded quite positively regarding the role of semantic mapping in helping them understand writing topics. A majority of students (11 out of 17, or 64.7%) gave a rating of 4 or 5. A score of 3 appeared fairly frequently (6 students), while only two students (S11 and S17) rated it as 2. In terms of idea development, the responses were slightly more varied, though still generally positive. Most students (10 students) rated this aspect a 3 or 4. Three students (S1, S5, S8) gave the highest score of 5, while one student (S4) gave the lowest score of 2. These results suggest that students perceived greater benefits in understanding the topic than in directly developing ideas.

Ease of Writing and Future Interest

Semantic mapping's contribution to easing the writing process received solid, though slightly less enthusiastic, responses compared to topic comprehension. The majority of students (14 out of 17, or 82.3%) rated this aspect 3 or 4. No students rated it exclusively with a 5 (although some gave 5 in combination with other elements), and three students (S4, S11, S17) rated it a 2. Notably, student interest in using semantic mapping in future writing activities received the most consistently positive responses. A total of 7 students (S1, S5, S8, S10, S14, S15) gave ratings of 4 or 5, and 6 students rated it a 4. Only four students (S4, S6, S13, S16) received a score of 3, and none received a score below 3. This reflects a strong enthusiasm for continuing to use this tool.

Clarity of Teacher Instruction

The clarity of the teacher's explanation on how to use semantic mapping received overwhelmingly positive feedback. A majority of students (13 out of 17, or 76.5%) rated this aspect a 4 or 5. Four students received a score of 3, and none scored below 3. This high rating indicates that the teacher successfully conveyed the method to most students. An interesting pattern emerged: students who gave high scores (4 or 5) for teacher clarity (e.g., S5, S8, S10, S12, S15) also tended to rate the other aspects positively, including future interest and perceived benefits.

Discussion

The findings of this study consistently affirm the effectiveness of semantic mapping as a pre-writing strategy in English writing instruction at the junior high school level (SMP Muhammadiyah Kota Gorontalo). Both teacher (T1 and T2) and student perceptions indicated that this technique successfully fulfilled its core purpose: supporting topic comprehension, idea generation, and text organization. Teachers reported clear improvements in student writing coherence, cohesion, and structure, particularly at the paragraph level. Meanwhile, students, despite some variation, largely acknowledged its benefits (64.7% for topic comprehension and 82.3% for writing ease). This convergence of positive perceptions from both key stakeholders reinforces theoretical claims that semantic mapping serves as a valuable cognitive scaffold for overcoming initial writing difficulties. A deeper analysis reveals that teachers and students offer complementary yet distinct perspectives on the benefits of semantic mapping. Teachers—especially those in T2—emphasized macro-level advantages, such as improved student confidence, systematic thinking, and enhanced classroom interaction through group discussions. They observed improvements in overall writing quality, particularly in coherence and the use of transition sentences. On the other hand, students focused more on the micro-level and their individual experiences, finding that semantic mapping

helped them understand what to write and where to begin, thus making the writing process easier and more focused. This dual perspective provides a comprehensive understanding of how the strategy operates, not only at the individual cognitive level but also in shaping the social and communicative dynamics of the classroom (Sulistyo & Ningsih, 2015).

One of the most significant findings is the pivotal role of the teacher in the successful implementation of semantic mapping. Student data explicitly indicate a strong positive correlation between the clarity of teacher instruction (rated 4–5 by 76.5% of students) and students' positive perceptions of the strategy, as well as their interest in using it again in the future. This is supported by the contrasting yet effective approaches described by the teachers: T1 employed a structured, guided method, while T2 used group discussion before individual mapping. The variation in these approaches highlights the strategy's flexibility; however, the success of either method depends largely on the teacher's ability to clearly explain and facilitate the process. Instructional clarity appears to be a key determinant in how students perceive and benefit from semantic mapping.

Student interest in using semantic mapping in future activities emerged as a strong highlight (with no scores below three and most scoring 4 or 5). This suggests broad acceptance and appreciation of the strategy, particularly after an initial adaptation period, as noted by T2. However, this finding should be considered in conjunction with the responses of a minority of students (S4, S11, S17), who consistently gave lower scores across all aspects. This aligns with the challenges reported by teachers: the need for extended instructional time (T1) and the issue of unprepared students affecting group dynamics (T2). Collectively, these insights suggest that while semantic mapping is generally effective and well-received, it may not be equally effective for all learners without differentiated support, particularly for students who require more guidance or have distinct learning preferences (Chen & Liu, 2011).

Compared to other pre-writing strategies, semantic mapping was perceived by teachers as offering unique advantages. T1 highlighted its flexibility and suitability for visual learners, while T2 emphasized its ability to foster clearer, more structured idea elaboration than traditional brainstorming. These comparative strengths, coupled with high student interest, support the strategy’s continued use. Nevertheless, the study also identified practical challenges that should not be overlooked: the need for adequate time allocation in lesson planning and effective classroom management strategies to address less-prepared or passive students (Solhi & Eğinli, 2020). Though these challenges are contextual, they are crucial to ensuring inclusive and sustainable implementation.

The findings of this study have important implications for English writing instruction. First, semantic mapping proves to be a viable and effective pre-writing strategy for junior high school contexts. Second, teacher training should emphasize not only the conceptual foundations of semantic mapping but also the instructional skills required to explain and implement it using varied approaches (e.g., structured vs. discussion-based). Third, teachers should plan for additional time and develop supportive strategies, such as using "prompting responses" (as mentioned by T1), for students who require more assistance.

Conclusion

Semantic mapping is validated as a powerful pre-writing scaffold within this EFL setting. Its primary strength lies in transforming the often-daunting task of initiating writing into a manageable, structured process, leading to tangible improvements in text organization and quality. The convergence of positive teacher and student perceptions underscores the practical value and acceptance of this approach. However, its successful integration hinges critically on two factors: explicit, clear instruction from the teacher and sufficient allocation of instructional time. The identified challenges are not inherent flaws of the strategy but rather contextual implementation factors. They highlight necessary considerations for wider adoption, including flexible lesson planning to accommodate the strategy's time requirements, the development of differentiated support techniques to cater to diverse learner readiness and engagement levels, and teacher professional development focused on effective explanation methods and managing interactive mapping activities. Future research should explore the longitudinal impact of semantic mapping on more complex writing tasks (beyond paragraphs), directly compare the efficacy of different implementation models (highly structured vs. discussion-based), and investigate specific strategies for effectively supporting the minority of students who initially benefit less. Nevertheless, this study strongly advocates for semantic mapping as a valuable, adaptable, and motivating tool in the EFL writing instructor's repertoire, capable of significantly empowering students in their writing development when implemented thoughtfully.

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