PRACTICAL ANALYSIS OF RESEARCH RESULTS ON THE DEVELOPMENT OF WRITING SKILLS THROUGH METACOGNITIVE STRATEGIES

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Abstract:

This study examines the impact of metacognitive strategies on the development of English writing competence among senior high school students. The research focuses on planning, monitoring, and evaluation as key components of self-regulated learning. A comparative analysis was conducted before and after the implementation of metacognitive instruction, supported by graphical analysis of academic results. The findings show that students initially demonstrated weak organization, limited coherence, and insufficient control over the writing process. After the intervention, significant improvements were observed in planning, text organization, and revision practices. Graphical data further revealed positive growth trends and increased learner engagement. The study concludes that metacognitive strategies enhance writing competence by promoting structured and self-regulated learning.

Keywords: Metacognitive strategies, writing competence, self-regulated learning, EFL writing, planning, monitoring, evaluation, writing development, academic performance.

Anotatsiya: Ushbu tadqiqot metakognitiv strategiyalarning yuqori sinf o‘quvchilarining ingliz tilida yozish kompetensiyasiga ta’sirini o‘rganadi.Tadqiqotda rejalashtirish, monitoring va baholash jarayonlari asosiy omil sifatida ko‘rib chiqildi. Metakognitiv yondashuv joriy etilishidan oldin va keyin o‘quvchilar natijalari qiyosiy hamda grafik tahlil qilindi. Natijalar dastlab o‘quvchilarda matnni tashkil etish va mantiqiy bog‘liqlikda kamchiliklar mavjudligini ko‘rsatdi. Intervensiyadan so‘ng esa yozishni rejalashtirish, tuzish va tahrirlash ko‘nikmalari sezilarli darajada yaxshilandi. Grafik tahlillar ham ijobiy o‘sish dinamikasini ko‘rsatdi. Xulosa qilib aytganda, metakognitiv strategiyalar yozish ko‘nikmalarini rivojlantirishda samarali hisoblanadi.

Kalit so‘zlar: Metakognitiv strategiyalar, yozish kompetensiyasi, o‘z-o‘zini boshqaruvchi o‘qish, ingliz tilida yozish,rejalashtirish,monitoring,baholash, yozish rivoji, akademik natijalar.

Аннотация. Данное исследование рассматривает влияние мета когнитивных стратегий на развитие письменной компетенции учащихся старших классов. Особое внимание уделяется таким компонентам, как планирование, мониторинг и оценка в рамках саморегулируемого обучения. Проведен сравнительный и графический анализ результатов до и после внедрения методики. Результаты показали значительное улучшение в организации текста, логической связности и редактировании, тогда как языковая точность развивается постепенно. Исследование подтверждает эффективность мета когнитивных стратегий в обучении письменной речи.

Ключевые слова: Мета когнитивные стратегии, письменная компетенция, саморегулируемое обучение, обучение письму, планирование, мониторинг, оценивание.

Comparative Analysis of Students' Writing Competence Before and After the Implementation of Metacognitive Strategies

A rigorous evaluation of students' writing development requires a multidimensional understanding of competence that extends beyond surface-level linguistic accuracy. In the context of foreign language instruction, writing competence encompasses a complex integration of idea generation, discourse organization, coherence and cohesion management, genre awareness, and the ability to regulate the writing process under cognitive constraints. From a theoretical perspective, metacognitive strategies—particularly planning, monitoring, and evaluation—are expected to influence both the product of writing and the process through which writing is produced. Prior to the implementation of metacognitive strategy instruction, students typically demonstrated characteristics associated with developing second-language writers. Writing was often approached as a linear process focused on sentence construction, with limited attention to global organization or communicative purpose. Planning was either absent or superficial, and revision practices were largely restricted to surface-level corrections such as grammar and spelling. As a result, students' written outputs frequently exhibited weak coherence, inconsistent argument development, and structural fragmentation. These patterns reflect not only linguistic limitations but also insufficient metacognitive awareness and underdeveloped self-regulation skills. From a cognitive standpoint, the absence of planning and monitoring strategies significantly increases cognitive load, particularly in a foreign language context where linguistic encoding is not yet automatized. Students are forced to simultaneously generate ideas, organize discourse, and produce grammatically accurate sentences, leading to inefficient resource allocation. Consequently, learners often adopt compensatory strategies such as simplifying content, avoiding complex structures, or prematurely

terminating their texts. This results in uneven competence, where students may demonstrate isolated strengths (e.g., vocabulary knowledge) but fail to produce coherent and well-structured texts. Following the systematic integration of metacognitive strategies into instruction, a substantial shift in students' writing competence becomes observable. The most notable improvement occurs in the planning phase, where students begin to engage in goal-setting, audience analysis, and structured idea generation. The use of outlines and planning frameworks allows learners to externalize their thinking, thereby reducing cognitive load during drafting and enabling more effective management of discourse-level features. Post-intervention texts typically demonstrate clearer thesis statements, improved paragraph structure, and more consistent logical progression. In addition to planning, enhanced monitoring behaviors contribute significantly to improved writing quality. Students become more actively engaged in self-regulation during the drafting process, frequently revisiting and evaluating their text in relation to their initial goals. This results in fewer logical inconsistencies, more appropriate use of cohesive devices, and greater alignment between ideas and overall communicative intent. Importantly, monitoring extends beyond grammatical accuracy to include higher-order concerns such as clarity, relevance, and audience comprehension. A further critical development is observed in evaluation and revision practices. Whereas pre-intervention revision was predominantly limited to proofreading, post-intervention students demonstrate increased engagement in global revision. This includes restructuring paragraphs, expanding arguments, refining thesis statements, and eliminating irrelevant information. Such changes indicate a transition from a product-oriented to a process-oriented understanding of writing, where revision is viewed as an integral stage of meaning construction rather than a final corrective step.

It is important to note that improvements are not uniform across all dimensions of competence. While discourse-level features such as organization and coherence tend to improve relatively quickly, linguistic accuracy develops more gradually. In some cases, increased willingness to use complex structures may initially result in a higher frequency of grammatical errors. However, this should be interpreted as a developmental phase rather than a regression, reflecting students' growing confidence and strategic experimentation.

Moreover, metacognitive strategy instruction contributes to affective and motivational changes. Students demonstrate increased self-efficacy, reduced writing anxiety, and greater willingness to engage with complex tasks. They begin to perceive writing as a manageable and controllable process, which fosters persistence and supports long-term development. Importantly, students also show improved ability to transfer their skills to new writing contexts, indicating that metacognitive strategies have been internalized rather than applied mechanically.Overall, the comparative analysis reveals that the most significant impact of metacognitive strategy instruction lies in enhancing students' self-regulatory capacity. Writing competence evolves from a reactive and fragmented activity into a controlled and purposeful process, where learners actively manage their cognitive resources and make informed decisions throughout all stages of writing.

Analysis of Students' Academic Results and Learning Outcomes through Graphical Representation

Similarly, reductions in recurring errors over time indicate that students are developing greater awareness and control over their language use. In addition to performance outcomes, graphical analysis also provided insights into learner engagement and motivation. Increased consistency in task completion and more

stable performance trends suggest that students became more confident and invested in the writing process. These findings reinforce the idea that metacognitive strategies not only enhance cognitive performance but also support positive learning behaviors. Importantly, the use of graphical analysis enhances methodological transparency and interpretability. By presenting data visually, the study ensures that patterns of improvement are clearly communicated and supported by empirical evidence. This approach also facilitates more nuanced interpretation, allowing researchers and educators to identify specific areas of strength and weakness and to make informed instructional decisions.

Comparative and graphical analysis shows that metacognitive strategies have a clear impact on writing development. The greatest improvement is seen in organization, planning, and revision, while linguistic accuracy develops more slowly. The findings confirm the importance of a student-centered, process-oriented approach. Metacognitive strategies improve writing performance and support independent learning. Graphical analysis makes results clear and highlights changes across stages and groups. Overall, combining theoretical and practical approaches ensures effective writing instruction.

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