

The Curriculum Content of a Metacognition-Based Program for Reducing Learning Disorders Among Elementary School Students

Esmat. Nabipoor¹, Maryam. Baratali^{2*}, Jahanbakhsh. Rahmani²

¹ PhD Student, Department of Educational Sciences, Isf.C., Islamic Azad University, Isfahan, Iran

² Department of Educational Sciences, Isf.C., Islamic Azad University, Isfahan, Iran

* Corresponding author email address: maryambaratali@iau.ac.ir

Editor

Asoke Kumar Saha
Professor Department of
Psychology, Jagannath University,
Dhaka, Bangladesh
drasoke@psychology.jnu.ac.bd

Reviewers

Reviewer 1: Mehdi Rostami
Department of Psychology and Counseling, KMAN Research Institute, Richmond Hill, Ontario, Canada.
Email: dr.mrostami@kmanresce.ca
Reviewer 2: Masoud Asadi
Assistant Professor, Department of Psychology and Counseling, Arak University, Arak, Iran.
Email: m-asadi@araku.ac.ir

1. Round 1

1.1. Reviewer 1

Reviewer:

In the Method section, the sentence “The research domain consisted of all articles available in reputable databases and websites” is too broad and scientifically ambiguous. The authors should name the databases and websites used, such as Scopus, Web of Science, PubMed, ERIC, Google Scholar, SID, Magiran, Noormags, or other relevant sources. Without specifying the exact sources, the sampling frame is not reproducible and readers cannot assess whether the search strategy was sufficiently comprehensive.

In the Method section, the sentence “43 Persian-language documents published between 2007 and 2025 and 30 English-language documents published between 1991 and 2025 were examined” requires a clear justification for the different time ranges assigned to Persian and English documents. The authors should explain why English sources begin in 1991 while Persian sources begin in 2007. If the difference is based on the historical development of the literature, availability of national studies, or database coverage, this rationale should be explicitly stated.

In the Method section, the phrase “the data collection technique was an exploratory inductive approach” is conceptually inaccurate. An exploratory inductive approach is a research orientation or analytical logic, not a data collection technique. The authors should distinguish among research approach, data collection method, data collection instrument, and data analysis procedure. For example, document review can be described as the data collection method, note-taking or extraction forms as the instrument, and inductive coding as the analysis procedure.

In the paragraph on “Planning and Self-Monitoring Content,” the authors mention “dividing goals into smaller parts,” “self-monitoring,” and “controlling cognitive processes,” but the table itself does not explicitly include all these items in the same wording. The authors should ensure that the narrative interpretation remains directly traceable to the basic themes in Table 1. In qualitative reporting, each interpretive claim should be supported by visible codes, representative evidence, or a clear analytic pathway from code to theme.

In the paragraph on “Skill and Lifestyle Content,” the sentence “educational content should go beyond the academic domain and enhance students’ general preparedness for life” is important but requires clearer theoretical grounding. The authors should explain why lifestyle-related content belongs in a curriculum designed specifically to reduce learning disorders. This could be justified through transfer of learning, adaptive functioning, executive functioning in daily life, self-regulation, and generalization of metacognitive strategies beyond classroom tasks.

Authors revised the manuscript and uploaded the document.

1.2. Reviewer 2

Reviewer:

In the Method section, the sentence “the data analysis method was three-stage coding” should be expanded substantially. The authors should explain what the three stages were, for example open coding, axial coding, and selective coding, or initial coding, theme development, and theme refinement. They should also describe how codes were generated, how similar codes were merged, how organizing themes were derived, and how disagreements among coders, if any, were resolved.

In the Method section, the ethical considerations paragraph refers to “interviews/observations” and “participants,” although the study is described as document-based. This creates a serious inconsistency. If no human participants were involved, the paragraph should be revised to focus on ethical principles relevant to documentary qualitative research, such as accurate citation, avoidance of plagiarism, faithful representation of sources, transparency in selection criteria, and unbiased interpretation. If interviews or observations were conducted, they must be described in the sampling, data collection, and analysis sections.

In the Method section, the authors should add explicit inclusion and exclusion criteria for the reviewed documents. For example, the article should clarify whether included studies had to address elementary students, learning disorders, metacognition-based intervention, curriculum content, cognitive-metacognitive strategies, or special education. It should also clarify whether opinion papers, conference abstracts, theses, books, clinical manuals, and non-peer-reviewed materials were included or excluded. This is especially important because the study combines articles, books, websites, and conference sources.

In the Findings section, the sentence “The qualitative analysis of the data organized the curriculum content required for reducing metacognition-based learning disorders into seven main categories” should be revised because “metacognition-based learning disorders” is conceptually incorrect. Learning disorders are not metacognition-based; rather, the curriculum or intervention is metacognition-based. A more accurate formulation would be “the curriculum content required for a metacognition-based program to reduce learning disorders.” This correction is necessary throughout the manuscript to prevent conceptual ambiguity.

In Table 1, several basic themes appear to overlap or repeat conceptually, such as “neuroplasticity or brain flexibility approach,” “brain plasticity,” and “neuropsychological rehabilitation.” The authors should explain whether these were separate codes in the raw data or whether they can be merged into a more coherent category. Reducing redundancy would improve the analytical precision of the thematic structure and prevent the table from appearing as a list of loosely assembled concepts.

In Table 1, the classification of some basic themes under “attitudinal–value content” needs reconsideration. For example, “cognitive and metacognitive processing,” “durability of educational interventions,” “genetic and developmental nature of individuals,” and “hierarchical design” do not clearly represent attitudinal or value-based content. The authors should either relocate these themes to knowledge content, processing content, or curriculum design principles, or provide a theoretical explanation for why they belong under the attitudinal–value domain.

In Table 1, the organizing theme “knowledge content” includes a very large and heterogeneous set of items, ranging from cognitive strategies and executive functions to genetic, biological, developmental, behavioral, and educational theories. This category may be too broad to function as a useful curriculum component. The authors should consider subdividing it into more specific subdomains, such as theoretical foundations, cognitive mechanisms, metacognitive knowledge, and instructional representations.

In the Findings section, the paragraph on “Academic Content” states that content should target “the foundational skills of reading, writing, and mathematics,” but Table 1 gives much greater emphasis to reading than to writing and mathematics. The authors should balance this section by adding more explicit themes related to written expression, spelling, mathematical reasoning, number sense, calculation, problem-solving, and mathematical anxiety if these were found in the analyzed documents. Otherwise, the statement these were found in the analyzed documents. Otherwise, the statement should be narrowed to match the evidence presented in the table.

In the Findings section, the paragraph on “Processing Content” refers to “neuropsychological rehabilitation” and “neuroplasticity,” but the manuscript does not explain how these concepts can be translated into elementary curriculum content. The authors should provide concrete curricular examples, such as attention-control tasks, working-memory exercises, sequencing games, inhibition activities, error-detection tasks, multisensory processing exercises, or gradual cognitive practice. Without such examples, the findings remain theoretically meaningful but insufficiently operationalized.

Authors revised the manuscript and uploaded the document.

2. Revised

Editor’s decision: Accepted.

Editor in Chief’s decision: Accepted.