

REVIEWER'S REPORT

Manuscript No.: IJAR-58252

Title: STEM Curriculum Alignment in Israeli Grade 10 Secondary Education: A Qualitative Document Analysis of Mathematics, Science, and Biotechnology Curricula.

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance		✓		

Reviewer's ID: JPR-234

Detailed Reviewer's Report

Through a qualitative document analysis of five core subjects—mathematics, biology, biotechnology, chemistry, and physics—the manuscript explores how the Israeli Grade 10 curriculum aligns with internationally recognized STEM education characteristics. The subject is timely, important from an educational standpoint, and extremely pertinent to the current debates over integrated STEM education and curriculum reform.

Overall, the manuscript is clearly written and well-structured. It is grounded in the recent literature, and clearly articulated in recent scholarly articulated. The findings are more credible due to the reported inter-rater reliability (Holsti coefficient = 0.84) and the theoretical justification of the coding rubric based on five STEM indicators. An important addition to STEM curriculum research is the comparison of five curricula.

The methodological section requires greater detail regarding the development and validation of the coding rubric. Although binary coding (0 = absent, 1 = present) provides consistency, it may oversimplify complex curriculum characteristics. The manuscript should acknowledge the limitations of binary coding and discuss whether a weighted or ordinal coding system could provide richer analytical insights.

The study relies exclusively on official curriculum documents and therefore evaluates the intended curriculum rather than classroom implementation. While this limitation is acknowledged, the discussion should more clearly distinguish between curriculum intent and actual teaching practice and avoid making broad conclusions about students' STEM learning experiences.

Rather than just summarizing percentage differences between subjects, the discussion would benefit from a more thorough theoretical interpretation. The manuscript also reports percentages without conducting statistical comparisons among curricula. Although qualitative document analysis does not necessarily require inferential statistics, the inclusion of simple comparative measures or justification for relying solely on descriptive statistics would improve methodological rigor.

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

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Some recommendations in the conclusion appear highly prescriptive, such as specifying the number of design-based laboratory projects or quantitative tasks to be introduced into curricula. These recommendations should be presented more cautiously unless supported by empirical evidence beyond the document analysis.

Minor editorial revisions are also recommended. Some sections of the discussion are repetitive, and several lengthy paragraphs could be condensed for improved readability. Consistency in reference formatting, punctuation, and citation style should be carefully checked before publication.

This STEM is an original contribution to a valuable research research research curriculum research. The study is a recent educational study that is supported by an educational study that is methodologically sound, and is methodologically sound. Nonetheless, theoretical theoretical theoretical theoretical theoretical theoretical theoretical theoretical impact would strengthening the methodological justification of the methodological justification of the methodological justification of the methodological justification of the methodological justification.

Decision: Accept after Revision

This section requires substantial strengthening. Much of it repeats the results instead of interpreting them. The discussion should explain why differences occur, connect findings more deeply to Constructivism and Integrated STEM theory, compare results critically with international studies, and discuss broader implications for curriculum policy

There is a good chance that the manuscript will be published in a respectable international journal. It is expected to contribute significantly to the literature on STEM curriculum design, educational policy, and comparative curriculum studies after resolving the methodological, analytical, and editorial issues mentioned above.