Paper: **"Teaching Magnetism to Preschoolers through ICT: An Early Childhood Science Approach"**

Corresponding Author: Maria Trapali

Peer review:

Reviewer 1: Blinded

Reviewer 2: Blinded

Reviewer 3: Blinded

Reviewer 4: Blinded

Reviewer A:
Recommendation: Revisions Required

The TITLE is clear and it is adequate to the content of the article.
The title, "Natural sciences in early childhood: Teaching magnetism to preschool children using Information and Communication Technology," is clear and relevant to the content of the article. It accurately reflects the study's focus on introducing natural sciences to young children, specifically through the concept of magnetism and the integration of ICT. However, the title is somewhat lengthy and could be made more concise while retaining its meaning. For instance, simplifying it to "Teaching Magnetism to Preschoolers through ICT: An Early Childhood Science Approach" would still convey the main idea effectively. If the emphasis is on the combination of storytelling and technology, a slight refinement incorporating this aspect might make it even more precise.

The ABSTRACT clearly presents objects, methods, and results.
The abstract effectively outlines the objectives and methods of the study. However, the results section could be more clearly articulated to highlight the key findings. The abstract effectively introduces the study's aim, which is to explore science in early childhood through the concept of magnetism. The methods, such as using Information and Communication Technology (ICT) and storytelling, are briefly mentioned. However, the results or key findings are not explicitly stated in the abstract. It would be beneficial to summarize the impact of the methods used.

There are a few grammatical errors and spelling mistakes in this article.
• There are a few minor grammatical errors and awkward phrasing in some sections. A thorough proofreading would enhance readability.
• Some sentences are overly long and could be simplified for better readability.
• There are minor grammatical issues, such as "the realization of the educational process started…" which could be more naturally phrased as "The educational process began with…".
• The phrase "Being teachers, in order to organize science activities…" is unclear. A clearer structure would improve readability.

The study METHODS are explained clearly.
• The methodology section appears to be missing or insufficiently detailed. A clear explanation of the research design, data collection process, and analysis methods should be included to improve the study's credibility and reproducibility.
• The integration of storytelling and experimental activities is well described.
• However, the methodology would be stronger with additional details on participant selection (age range, number of children involved) and assessment criteria for measuring learning outcomes.

The body of the paper is clear and does not contain errors.
• The main text is generally well-structured and easy to follow. However, some sections could benefit from further elaboration, particularly in the discussion of findings.
• The structure of the paper is well-organized, with clear sections covering activities and educational tools.
• However, there is some repetition in explaining the characteristics of young learners and their

cognitive development. Consolidating similar ideas would improve clarity.
• Some sections, such as the description of activities, could be made more concise to avoid excessive detail.

The CONCLUSION or summary is accurate and supported by the content.
• The conclusion summarizes the study well and aligns with the content presented. However, it would be stronger if it explicitly connected findings to broader implications or future research directions.
• The conclusion effectively summarizes the study's purpose and the significance of using ICT in early childhood education.
• It reinforces the benefits of the teaching approach but does not explicitly discuss potential limitations or challenges encountered during implementation. A brief discussion on these aspects would add depth.

The list of REFERENCES is comprehensive and appropriate.
• The reference list is comprehensive and includes relevant sources. Ensure that all in-text citations have corresponding references in the list and that formatting is consistent throughout.
• The references cover relevant literature on early childhood education, ICT, and storytelling.
• Some citations in the text need formatting adjustments (e.g., spacing inconsistencies in "[Zhao J et al,2022]" should be "[Zhao J et al., 2022]").
• A check should be conducted to ensure that all in-text citations appear in the reference list and vice versa.

Please rate the TITLE of this paper.
[Poor] **1-5** [Excellent]
3

Please rate the ABSTRACT of this paper.
[Poor] **1-5** [Excellent]
3

Please rate the LANGUAGE of this paper.
[Poor] **1-5** [Excellent]
4

Please rate the METHODS of this paper.
[Poor] **1-5** [Excellent]
3

Please rate the BODY of this paper.
[Poor] **1-5** [Excellent]
3

Please rate the CONCLUSION of this paper.
[Poor] **1-5** [Excellent]
3

Please rate the REFERENCES of this paper.
[Poor] **1-5** [Excellent]

Overall Recommendation!!!
Return for major revision and resubmission

Comments and Suggestions to the Author(s):
Dear Authors,
Your article presents a valuable and engaging approach to introducing natural sciences to preschool children through the use of ICT and storytelling. Especially, regarding the methodology, there are areas that require further clarification and refinement. Specifically, the methodology would benefit from a more detailed explanation of the participant selection process, including the number and age range of children involved. Additionally, clearer assessment criteria for measuring the effectiveness of the teaching interventions would strengthen the study. While the activities and educational tools are well described, some sections contain repetitive information that could be streamlined for clarity. Addressing these aspects will enhance the overall quality and impact of your paper. With these revisions, the article will be even more compelling and well-prepared for publication.

Reviewer B:
Recommendation: Revisions Required

The TITLE is clear and it is adequate to the content of the article.
The title is generally clear and descriptive. It reflects the focus on early childhood education, magnetism, and the use of ICT. However, it could be slightly refined for clarity or conciseness.
The ABSTRACT clearly presents objects, methods, and results.
The abstract is clear, concise, and effectively outlines the objectives, methodology, and key findings of the study. It provides a solid overview of the research and successfully captures the reader's interest while summarizing the main contributions of the paper.
There are a few grammatical errors and spelling mistakes in this article.
The article is well-written and free from grammatical or spelling mistakes. The language is clear, precise, and appropriate for an academic context, contributing to the overall readability and professionalism of the paper.
The study METHODS are explained clearly.
The methodology is outlined, but it lacks depth in several areas. More details are needed regarding the participants, duration of the intervention, and the specific ICT tools used. A clearer explanation of how the learning outcomes were measured would strengthen the methodological section.
The body of the paper is clear and does not contain errors.
The paper is generally well-organized and clearly written; however, the literature review section is quite limited. Expanding this section with more relevant studies would provide stronger

theoretical grounding and context for the research. Including a broader range of scholarly sources would also help to better position the study within the existing body of knowledge.

The CONCLUSION or summary is accurate and supported by the content.
The conclusion summarizes the overall outcomes, but it could be more concise and directly tied to the findings discussed. Including implications for practice or recommendations for future research would improve the relevance and impact of the conclusion.

The list of REFERENCES is comprehensive and appropriate.
While the references used are generally relevant to the topic, the list could benefit from the inclusion of more recent and up-to-date sources, particularly from the past five years. Incorporating newer studies would strengthen the theoretical foundation and demonstrate engagement with current research in early childhood science education and ICT.

Please rate the TITLE of this paper.
[Poor] **1-5** [Excellent]
3

Please rate the ABSTRACT of this paper.
[Poor] **1-5** [Excellent]
4

Please rate the LANGUAGE of this paper.
[Poor] **1-5** [Excellent]
5

Please rate the METHODS of this paper.
[Poor] **1-5** [Excellent]
3

Please rate the BODY of this paper.
[Poor] **1-5** [Excellent]
3

Please rate the CONCLUSION of this paper.
[Poor] **1-5** [Excellent]
3

Please rate the REFERENCES of this paper.
[Poor] **1-5** [Excellent]
2

Overall Recommendation!!!
Accepted, minor revision needed

Comments and Suggestions to the Author(s):
There are a few areas where the manuscript could be strengthened:

The literature review is quite limited and would benefit from the inclusion of more recent and

relevant studies to provide a stronger theoretical foundation.

While the methodology is described clearly, adding more specific details about the participants, duration, and assessment criteria would enhance transparency and replicability.

Expanding the reference list with more up-to-date sources from the past five years would help ground the research in current academic discussions.

Overall, this is a promising contribution, and with some revisions, it can become an even more impactful resource for educators and researchers in the field.

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Reviewer C:
Recommendation: Resubmit Elsewhere

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The TITLE is clear and it is adequate to the content of the article.
the title is ok
The ABSTRACT clearly presents objects, methods, and results.
no, the abstract is lacking to present objects, methods, and results. The abstract is mostly a general description of the topic, i.e., it gives some background information but nothing to let the reader know about the number of subjects, what methods were used in the study, and what the overall objective of the paper. I suggest that the abstract be rewritten.
There are a few grammatical errors and spelling mistakes in this article.
grammar is ok.
The study METHODS are explained clearly.
The section of the study methods is totally absent. The writer must include this section and clearly state the objectives, subjects, data collection and data analysis, statement of privacy.
The body of the paper is clear and does not contain errors.
it lacks a literature review section. it immediately starts the explanation of the tales used, etc., but it does not include any form of discussion related to the results and methods of the study.
The CONCLUSION or summary is accurate and supported by the content.
this part is very short. It must be rewritten, and it must follow the discussion section that is absent in this paper.
The list of REFERENCES is comprehensive and appropriate.
it is ok, but it may be more if there is the literature review section.
Please rate the TITLE of this paper.
[Poor] **1-5** [Excellent]
4

Please rate the ABSTRACT of this paper.
[Poor] **1-5** [Excellent]
2

Please rate the LANGUAGE of this paper.

[Poor] **1-5** [Excellent]
3

Please rate the METHODS of this paper.
[Poor] **1-5** [Excellent]
1

Please rate the BODY of this paper.
[Poor] **1-5** [Excellent]
2

Please rate the CONCLUSION of this paper.
[Poor] **1-5** [Excellent]
2

Please rate the REFERENCES of this paper.
[Poor] **1-5** [Excellent]
3

Overall Recommendation!!!
Return for major revision and resubmission

Comments and Suggestions to the Author(s):
It is advisable to enrich your paper with more relevant information, discussion, and analysis so as to point out the real purpose of the paper, and to reach its objectives. The content of the results is interesting, but for the paper to be full and much better, it is advisable to add those necessary sections.