Paper: **"E-training environment for developing Capstone teaching skills for STEM teachers in Egypt"**

Corresponding Author: Noha Anbar

Peer review:

Reviewer 1: Krzysztof Nesterowicz
Ludovika-University of Public Service, Hungary

Reviewer 2: Soufiane Er-Razine
Regional Centre for Education and Training Professions, Morocco

Reviewer 3: Blinded

Reviewer A:
Recommendation: Resubmit for Review

The TITLE is clear and it is adequate to the content of the article.

See comments

The ABSTRACT clearly presents objects, methods, and results.

See comments

There are a few grammatical errors and spelling mistakes in this article.

Yes, it needs professional proofreading.

The study METHODS are explained clearly.

See comments

The body of the paper is clear and does not contain errors.

See comments

The CONCLUSION or summary is accurate and supported by the content.

See comments

The list of REFERENCES is comprehensive and appropriate.

See comments

Please rate the TITLE of this paper.

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

2

Please rate the ABSTRACT of this paper.

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

2

Please rate the LANGUAGE of this paper.

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

1

Please rate the METHODS of this paper.

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

2

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]

2

Overall Recommendation!!!

Return for major revision and resubmission

Comments and Suggestions to the Author(s):

Dear author(s)

While I found great value in your paper, I feel that it will take a bit more time and effort to make it suitable for publication.

I felt that the introduction needs to be developed further to clearly establish the justification/ importance of the new initiative and articulate the research problem and objective; these need to be specifically linked to the associated issues and problems. The introduction would benefit from a succinct description of what the paper is about and a stronger emphasis on the problem addressed by the research.

I felt that the research problem is not clearly addressed.

I suggest that the literature review section should also present the theoretical framework underpinning the study. The sources used in the literature review are outdated. You need to improve its scope by including recent studies and identifying and drawing upon the critical body of knowledge relevant to the research, including learning theories. Overall, the literature review needs to be strengthened in order to emphasise the real-world significance of the issues addressed and this inform the research design; the theoretical framework emerging from the literature review should relate to the research questions and points of emphasis Furthermore, the paper needs to explain how this literature was selected to be reviewed, i.e., what selection method was followed and how it was ensured that the review was sufficiently comprehensive and reflected the current state of the art. It would be helpful in clarifying the importance of the proposed study if the paper can include some of the latest article references published in recent years associated with the scope of the current research. Second, the literature review should be more carefully synthesized and structured.

You can use sub-headings and signposting to help the reader to follow the argument being developed through the paper and improve the readability of the paper. Consider also the following suggestions:

• Include a few introductory lines to indicate what the review will cover, outlining the purpose and scope.

• Present past work and identify the gaps in the previous work that the findings from the proposed study may shed some light on.

• Focus more on the empirical studies' backgrounds.

• Add more information to enable readers' understanding of the authors' view.

• Write concisely and avoid repetitive statements.

It is also recommended to use more recent studies in eLearning in general. You are encouraged to read for instance the following papers to get some ideas regarding the implications:

Bounou, A., Lavidas, K., Komis, V., Papadakis, S., & Manoli, P. (2023). Correlation between High School Students' Computational Thinking and Their Performance in STEM and Language Courses. Education Sciences, 13(11), 1101.

Papadakis, S., Gözüm, A. İ. C., Kaya, Ü. Ü., Kalogiannakis, M., & Karaköse, T. (2024). Examining the validity and reliability of the teacher self-efficacy scale in the use of ICT at home for preschool distance education (TSES-ICT-PDE) among Greek preschool teachers: A comparative study with Turkey. In IoT, AI, and ICT for Educational Applications: Technologies to Enable Education for All (pp. 1-30). Cham: Springer Nature Switzerland.

Mercan, Z., Papadakis, S., Can Gözüm, A. İ., & Kalogiannakis, M. (2022). Examination of STEM parent awareness in the transition from preschool to primary school. Sustainability, 14(21), 14030.

You need to explain more clearly and in enough depth the research approach of the study. The methods should be adequately described to show how the research was

conducted in order to improve the transparency of the research and add its trustworthiness. For example, you need to justify the use of the data gathering methods needs and substantiate their appropriateness with a reference to the literature. Furthermore, you should describe the sampling technique and the data gathering instruments in sufficient detail, e.g., explain how the questionnaire was developed. Similarly, you need to be made clear how the data analysis methods used in the paper are appropriate for the analysis of the data obtained. It is suggested also that you discuss the reliability and the validity of the study outcomes. It is also important to address the limitations of the study, and to provide a comprehensive discussion of the expected benefits of the topic discussed in this paper.

i consider that the results are not appropriate, and that they could be explained better with the use of some diagrams and graphs.

I consider that the discussion section didn't a good job of integrating a literature review with the findings and a bit of a discussion at the same time. The discussion portion of the paper was probably, second to the findings themselves, the most informative.

I feel that the conclusion is too short and fails to summarise and conclude the paper. You should reiterate the purpose of the paper and state how the study has answered the research questions.

There is little focus on how the results of the study can be used by the scientific community. The conclusions and recommendations sections are very short and indecisive as to a future direction to improve further research.

The paper would benefit from more explanation on how the outcomes from your study could lead to improved further research and how this can potentially be achieved.

In conclusion, I came away from this paper thinking that's all great but what did it achieve, where are the weaknesses and how can you implement changes to address the issues raised?

Plagiarism ratio is 28% , and must be reduced at least to 20%

With regards

Reviewer B:
Recommendation: Revisions Required

The TITLE is clear and it is adequate to the content of the article.

Yes, it is.

The ABSTRACT clearly presents objects, methods, and results.

Yes, it is.

There are a few grammatical errors and spelling mistakes in this article.

Yes, there are numerous grammatical errors and spelling mistakes. I marked them in the attached manuscript.

The study METHODS are explained clearly.

Fair enough. I would like to see also some visual presentation of results, e.g. graphs.

The body of the paper is clear and does not contain errors.

It is clear. There are some spelling errors I marked in the manuscript for the authors.

The CONCLUSION or summary is accurate and supported by the content.

Yes, it is.

The list of REFERENCES is comprehensive and appropriate.

Yes, it is.

Please rate the TITLE of this paper.

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

4

Please rate the ABSTRACT of this paper.

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

4

Please rate the LANGUAGE of this paper.

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

3

Please rate the METHODS of this paper.

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

3

Please rate the BODY of this paper.

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

4

Please rate the CONCLUSION of this paper.

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

4

Please rate the REFERENCES of this paper.

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

4

Overall Recommendation!!!

Accepted, minor revision needed

Comments and Suggestions to the Author(s):

Dear Author(s),

Please, have a look at my comments attached with the manuscript.

Reviewer C:
Recommendation: Revisions Required

The TITLE is clear and it is adequate to the content of the article.

do not need the period (full stop) at the end of the title.

The ABSTRACT clearly presents objects, methods, and results.

The form needs to be reviewed. The abstract will be clearer and easier to read if divided into three equal paragraphs rather than one very big followed by a small one.

There are a few grammatical errors and spelling mistakes in this article.

check some grammatical errors and the use of ponctuation:
Ex:
Being one of the researchers is a Biology teacher &: Being, one of the researchers is a biology teacher and
Use do not instead of don't.

The study METHODS are explained clearly.

clear

The body of the paper is clear and does not contain errors.

some parts need to be re-organized to avoid repetitions:
9. Theoretical Framework, should be before the description of the methods and the experiment. Place it as number three may put the findings near to the research design.

The CONCLUSION or summary is accurate and supported by the content.

It is more like enumeration of the results. In addition, many affirmations are not related to the study. Ex: During public health crises like the COVID-19 pandemic, E-training allows for safe and socially distanced learning, reducing health risks associated with in-person gatherings.

This affirmation need to be proved: the current research added more depth than previous studies in the points outlined below! do the study checked the 8 points outlined?

the pedagogical implication also is a paragraph that not describe the conclusion of the article but proposing some application in general.

The list of REFERENCES is comprehensive and appropriate.

Appropriate.

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]

2

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]

2

Please rate the REFERENCES of this paper.

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

3

Overall Recommendation!!!

Accepted, minor revision needed

Comments and Suggestions to the Author(s):

Review the general design of the article to make it more appropriate as an academic paper. It is more like a thesis or a part of it, especially these parts :
1. Questions of the Research:
The problem of the research tackled the following main question:
4. Objectives of the Research:
4. Significance of the Research:
5. Research Variables:
The research relied on the following variables:
6.1. Independent Variable:
6.2. Dependent Variables:
Hypotheses of the Research