

Review of: "Implementation of e-learning during COVID-19"

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Potential competing interests: No potential competing interests to declare.

I would like to commend the Qeios journal for taking a new approach to disseminating research, and allowing the public to see critique and commentary from other researchers, "out in the open." This process of feedback is typically gathered through presentation of research at conferences. The following comments are made within that context.

It is unclear in the introduction of the paper whether the purpose involves conducting primary or secondary research, and if primary research (as suggested in the section titled "Methods") what methodology is employed. The "Methods" section states that a qualitative approach is taken (more on that below). It would be helpful for the reader if the introduction and abstract were more explicit about the research purpose and approach.

In the main body section which serves as the literature review under "Main e-learning issues," the author proposes a list of seven challenges associated with online learning during the COVID-19 pandemic. However, the author does not cite sources documenting these challenges. The author does provide a short list of eight references, but these references are not cited within the text. The reader can not know which claims regarding e-learning challenges were made by which authors in the reference list. The research on the topic over the past three years is significant. A quick search in the Clarivate Web of Science database using the search terms "e-learning AND COVID-19" yielded 1,843 research articles (2023: 146; 2022: 773; 2021: 706; and 2020: 218), one of those by the author of this article. The last article listed in the references (Tanjga, 2022) has a more thorough review of literature with proper citations.

The next section subtitled as a case study could also use documentation. For example, the second paragraph describes government "funding to universities to support the development of online courses." Such funding would likely have been reported. It would be helpful for the reader to see a citation and reference for such reports.

Generally, literature reviews conclude with research questions or hypotheses. These research questions are framed by the purpose of the study as described in the introduction and lead to the formation and description of methods to be employed. This study did not include specific research questions and consequently the methods are poorly developed. The "Methods" section comprises two sentences, the first of which claims a qualitative method was employed. The second sentence claims statistical analysis was used. Neither of these claims can be verified by what follows in the "Results" section.

The first two paragraphs of the "Results" section would fit better in the literature review section, with claims cited and referenced. The third paragraph of the results section should be placed in the "Methods" section under a subtitle "Instrument."



Regarding the instrument, the author employed a 21-item questionnaire. There is no other information provided about the questionnaire, such as validity and reliability measures, list of variables to be measured, or return rates.

The following section presents what appears to be description of responses to open-ended (qualitative) questions in the fourth division of items on the survey. No information is provided regarding the responses to the first three divisions, including description of the demographic characteristics of survey respondents.

At minimum, summaries of all data gathered for the research should be provided. Alternatively, justification for failure to provide such information should be provided. In the published article, the author only provided summary descriptive statistics for two survey items. No information was provided regarding how the summaries were obtained.

The author also presented interpretation of "results" with cited claims in the "Results" section. This information should either be provided in the "Discussion" section, or be provided as background in the literature review. Interestingly, the author chose to cite references here, but not in the literature review, where doing so is necessary.

No study limitations or directions for future study are provided in the "Conclusion" section.

As mentioned earlier, citations and references are seriously lacking in this article. Where they do occur, there is a lack of concordance between citation and reference. Specifically, Krishan (2016), Martin and Bollinger (2018), and Venkatesh (2019) are cited in the "Results" section but are not listed in the "References." Additionally, Chawla (2020), Hossain (2021), and Dai and Xia (2020) are listed in the "References" but not cited in the text. Crucial source information is not provided for the Hossain (2021) reference.

The topics covered in this article are both relevant and timely. However, this article appears to be very early in its development. Generally, such early stages are not published in the research literature, and I would not recommend its publication. Given that the purpose of this journal is to present not only the research but the process of peer critique of such research transparently and in the open, I would like to see further development of this research topic from this author.