Review of: "Digital Literacy Skills of Teachers: A Study on ICT Use and Purposes"

Åke Grönlund[1]

1 Örebro University

Review of "Digital Literacy Skills of Teachers: A Study on ICT Use and Purposes" by Arnold Chama

This paper reports a survey to 281 teachers in 20 schools (level not specified) in Lusaka Province, Zambia, investigating challenges encountered in teaching digital competencies "from a teacher's perspective". The findings stated are "lack of alignment (undefined), high cost and limited availability of technology".

In brief, the paper exhibits:

- A vague, or even non-existent problem description
- A superficial, but very lengthy, literature review covering a lot of for the study unrelated issues but none of those that are needed to explain and justify the study
- A survey design with no theoretical or empirical motivation, support or justification, and with no explanation of key concepts
- An unexplained and unjustified sampling of respondents
- A straight-forward results report containing just scores from the survey. There is no analysis of any kind.
- Conclusions that lack meaning as they have no relation to a clear problem description, to a description of the study setting (neither locally nor related to general pedagogical issues), or to some analysis of the data collected.

Some brief examples: The paper is generally unfocused and superficial. The objective of the paper is vaguely stated as "to ascertain how the use of educational digital tools by instructors in the classroom connects to their experiences". There is no clear problem description to guide the reader as concerns what will be done, how and why.

The literature review is superficial, comparing Africa to the EU and the US at a general level on statistics such as internet use. The comparison uses averages, which makes it unconnected to any empirical study settings as there is huge variation within continents, certainly in Africa. To make the comparison further unclear, some statements are incomprehensible, for example "Access is also hampered by relatively high mobile broadband prices, at 6.5% in 2021 and 6.4% in 2022, primarily to low-income individuals"

There is no definition of factors that appear to be key for the investigation, for example "alignment between technology, curriculum, and instruction". There is no connection between the (very long) literature review and the "Survey design" section, so there is no explanation of how the researcher came up with the questions asked. There is neither theory to

support the survey design, nor any comparison with similar studies (of which there were many a decade or two ago, but not so much anymore as studies of the relation between technology and pedagogy are now more nuanced and go more into depth). Neither is there any explanation of what the questions mean or how they were explained to the respondents. For example, the aforementioned "lack of alignment…" appears as a response item the teachers are to rank as a potential obstacle on a 5-grade scale. But as it is never explained, the reader cannot know what it means. Neither can we know that the respondents interpret it the same way as the researcher does

Regarding the method, there is no explanation of the sample of schools, school levels or teachers. In order to make the study publishable, the following needs to be done:

- Specify a clear research problem and relate it to existing similar research
- Focus the literature study on the specific problem at hand, define the critical issues there in ways that clearly relates the study to related research.
- Define the relevant population and sample of respondents. There are different school levels, schools are situated in different socioeconomic contexts, teachers teach different subjects…. problems appear differently due to such, and other, factors.
- Make sure the survey is clearly defined: key concepts clearly explained and defined in a way that is similar to how they are defined in previous research
- Discuss your findings. Relate them to other research so as to put them in perspective. My personal view is that the comparison between Africa, US and EU is reaching too far, and unnecessary. In fact, you could get much the same answers in a study in Sweden or the US. Teachers often think technology and pedagogy are unaligned, but this thinking has a different empirical background in different countries. It would be better if you made a clear description of just *how* teachers perceive this lack of alignment. Such a description would be understandable for teachers/educators/educational researchers/edtech providers also in the EU and the US as you would provide them with the specific Zambian empirical context