

Review of: "Technological Tools to Teach the Idea of Optimality"

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This study focused on the underemphasized aspect of optimization within widespread digital teaching tools, despite its fundamental role in mathematics. The relevance of optimality was explored, and the paper highlights its support in the FeliX dynamic geometry online system. The innovative approach integrates optimality statements alongside equality statements to describe geometric scenes, presenting a unique perspective on teaching optimization. Reports from teaching experiences enrich the discussion, providing practical insights. Conducted by Reinhard Oldenburg from Augsburg University's Mathematics Institute in Germany, the research addresses a gap in current mathematics education practices. Despite the centrality of optimization in mathematical journals, its prominence in educational settings is limited. While existing literature covers various problem-solving methods, including differential calculus applications and inequality-based solutions, the study argues for a more direct integration of optimization as a modeling tool in dynamic geometry environments. The paper contributes to the didactical repertoire by demonstrating how optimization can be seamlessly incorporated into teaching, expanding the horizon of educational approaches. Although it is an interesting study, there are some points with it.

- * It needs a better abstract.
- * Separate the introduction, background, and literature review sections. Add graphical abstract, research flow, discussion, future works, and limitation sections.
- * This paper does not emphasize the unique contributions and novelties compared to the existing literature review. It is better to compare this study with other similar studies in this field.
- * Utilize statistical tests to represent the validity of sample size and duration of analysis. Besides, list the advantages of the utilized methodologies in this paper in comparison with other similar methods for this purpose.
- * The literature review needs to be improved with more recent similar studies to be more informative.
- * It is better to update references using up-to-date papers. In this paper, 2 of 12 references are published after 2020, and the rest of them are before 2020. A table to summarize the literature review is suggested, as well.
- * In addition, the text of this paper needs to be revised in a way that is more interesting to readers.

I hope these comments improve the quality of this paper.

