

Review of: "Essential Calculus, a Revolutionary Approach to Teaching Calculus"

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Potential competing interests: No potential competing interests to declare.

Upon careful consideration, it was observed that the process of understanding calculus, particularly differential equations, indeed poses a significant challenge for students. This difficulty extends even to those who have a good mathematical grasp of the subject matter but lack complete understanding of its applications in real-world physics laws. Given this context, the teaching method proposed in the manuscript holds potential.

When thoroughly embraced with full motivation by the student, it is comprehended that the suggested teaching methodology could construct a significant foundation in the students' cognition of challenging topics like differential equations and calculus. This foundation might potentially enhance their understanding of advanced topics in the long run.

Furthermore, the proposed method could become a valuable piece of work, should it be validated through statistical analysis. However, the definitive efficacy of this approach cannot be accurately stated without a trial, as perceived from the current discourse.

The curriculum outlined in the manuscript appears comprehensive and logically sequenced. Starting from differentiating polynomials and concluding with second order systems, it is designed to cover all the necessary topics in a 10-week course, culminating in differential equations by the tenth week.

In conclusion, it is recommended that the paper be accepted. For future research, it is also suggested that statistical and scientific results regarding the effectiveness of this teaching methodology be considered and analyzed, providing empirical evidence to this promising educational strategy. This would enhance its credibility and applicability in the academic field.