

In my previous review I wrote:

My main concern is that it is poorly written. The author seems to be presenting a series of notes without carefully checking what he has written to make sure that it is clear.

The article is now much improved. There are still two issues that must be fixed but this can be easily done as I indicate below:

On p.1 middle:

“Accordingly, Adams et al.⁴ surveyed student beliefs about physics and about learning physics, finding that most teaching practices result in students thinking less like expert physicists after instruction.”

This statement at this place in the paper is problematic. Firstly “accordingly” is not appropriate. The rest of the statement does not follow from the preceding statements. Secondly, it is jarring – out of place at this point in the paper. It should be placed (without “accordingly”) near the top of page 5 just before

“Students Think More Like Experts. Before and after the quarter-long mechanics class in Spring of 2016, 63 of my 96 students in two classes completed an online version of the Colorado Learning Attitudes about Science Survey (CLASS).⁴ The results indicate a modest positive average shift, and a significant shift in applied conceptual understanding (Fig. 1).”

I suggest that at that point (p.5) the wording would be:

Adams et al.⁴ surveyed student beliefs about physics and about learning physics, finding that most teaching practices result in students thinking less like expert physicists after instruction. In the parallel pedagogy approach students think more like experts. Before and after the quarter-long mechanics class in Spring of 2016, 63 of my 96 students in two classes completed an online version of the Colorado Learning Attitudes about Science Survey (CLASS).⁴ The results indicate a modest positive average shift, and a significant shift in applied conceptual understanding (Fig. 1).

p.2 near top

Mark McDaniel explains:⁷

“In upper level classes, and the real world, you’re not going to be told what sort of... problem you’re encountering – you’re going to have to figure out the method you need to use. And you can’t learn how to do that unless you have experience dealing with a mix of different types of problems, and diagnosing which requires which type of approach.”

This does not flow easily from the rest of the paragraph. It would probably be best to delete this altogether.