

Review of: "Analyzing Students' Perceptions of Collaborative Tools for Automated Assessment of Programming Assignments in Distance Education"

Juan-Fernando Florez-Marulanda¹

¹ University of Cauca

Potential competing interests: No potential competing interests to declare.

This work is interesting and presents good intentions, however, I am concerned about the experimental design, the methodology used, and the control during the experiment.

1. In the experimental design and methodology, the authors do not specify the population, nor the criteria used to determine the sample size. The sampling method is not really random. For these cases, a quasi-experimental design is recommended, which is also a quantitative research method. This is adopted in cases where the experimental and control groups are not formed randomly, but from existing classes. In this design, the experimental and control groups are first compared with each other on the basis of a pretest to determine whether the groups have the same levels of knowledge and performance. If the levels of knowledge and performance are equal in both groups, then in a second step, one of the classes is chosen to be the experimental group following a particular treatment.
2. Flaws in the design and methodology can generate "bias" among the different participants. Certain participants have better programming skills than others, which obviously can and will affect the results obtained. This may explain the ambiguous results reported by another evaluator.