

Pair Programming: Enhancing Teaching and Learning of Programming at a Distance

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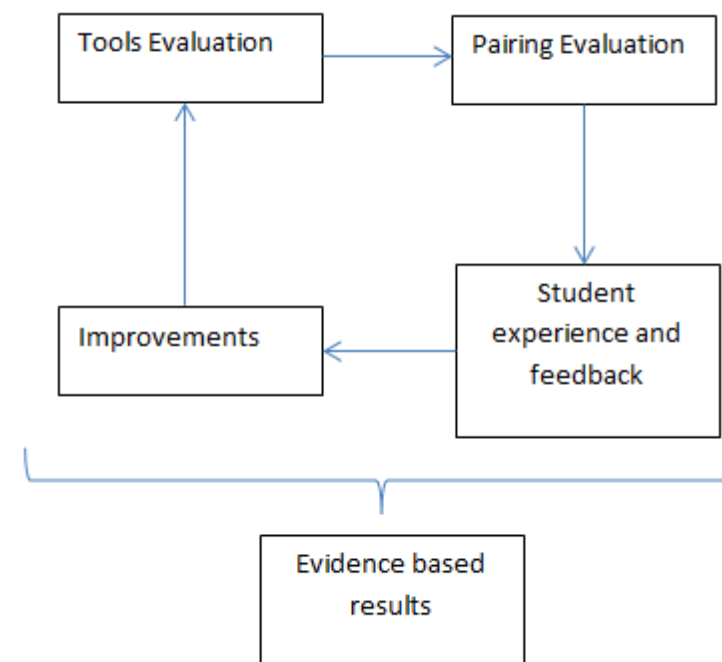
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Introduction:

Pair programming is a key aspect of Extreme Programming (XP), which encourages informal and immediate communication over joint coding work. The technique involves two developers: one in a driver role writes the code, controlling the keyboard and mouse, and the other, the navigator, reviews the code as the driver writes it. Despite the proven academic benefits for using pair programming in collocated classroom settings, distance and online settings are yet to benefit.

The Project:



Expected Outcome:

1. Reduce collaboration obstacles enough to make remote pair programming worthwhile and attractive to students at the Open University.
 - Through internal dissemination we hope that STEM modules involving programming (like S818 – Space Science or the new Maths modules on R programming) adopt pair programming to impact favourably on student experience. This could increase the university student retention rate and likelihood of students completing their studies.
2. Contribute to the wider academic research think-tank, the development of collaborative techniques for delivery of teaching programming at a distance.
 - This project's topics of "remote pair programming" and "teaching programming at a distance" are trending research work. This project ensures The Open University maintain her relevance as one of UK top research institutions contributing to development of education technology tools. The findings and tools used in this project will be disseminated externally, as they could benefit part-time education in general and student collaboration outside labs in face-to-face settings.