



Effects of wiki on health science students' collaborative learning, approaches to learning and performance in a traditional biostatistics course

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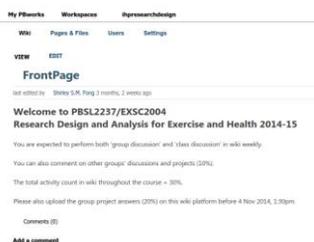
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Background:

- This study **aimed** to investigate the **effectiveness of incorporating wiki technology into a traditional biostatistics course on improving health science students' collaborative learning, approaches to learning and course performance.**

Summary of work:

- Twenty-one** and **twenty-four** undergraduate exercise and health students were assigned to the **wiki** and **control groups**, respectively.
- The students in the **wiki group** attended **face-to-face lectures** and used a **wiki (PBworks) weekly for online group discussion for 13 weeks**, and the students in the **control group** had **no access to the wiki platform** during the study period.
- The students' **collaborative learning, approaches to learning and course performance** were assessed using the **Group Process Questionnaire (GPQ)**, **Revised Study Process Questionnaire (R-SPQ-2F)** and **course results**, respectively, at the end of the intervention period.



Summary of results:

- Multivariate analysis of variance results revealed that the **R-SPQ-2F surface approach, surface motive score and surface strategy score were lower in the wiki group than in the control group** ($p < 0.05$).
- The **GPQ individual accountability and equal opportunity scores were higher in the wiki group than in the control group** ($p < 0.001$).

Conclusions:

- Using **wiki technology in conjunction with the traditional face-to-face teaching method in a biostatistics course could enhance undergraduate students' collaborative learning** (individual accountability and equal participation opportunity) and **approaches to learning** (from surface to deep learning levels).
- However, it could not improve students' overall course performance.

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