

Leveraging Role-Play and Podcasting: Innovative Student-Centred Pedagogies in Construction Education

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Introduction & Background

- Teaching ethics and professionalism, particularly in construction education, can be challenging.
- Emerging innovations in student-centred teaching & learning pedagogy offer opportunities for construction lecturers.
- **Role play** – a student-centred learning approach – can be used to promote students' experiential learning, especially in understanding ethical dilemmas
- Similarly, assessment of students understanding of ethics and professionalism requires attention if performance is to improve.
- **Student-generated podcasts (SGP)** offer an alternative to traditional examinations, in-class tests and report writing.

Aim, Objectives, and Scope

- The aim of the study was to explore innovative student-centred learning and assessment approaches within construction education.
- The objectives set towards achieving this aim are:
 1. to assess the impact of adopting role-play in teaching ethics and professionalism to 1st-year construction students at De Montfort University, UK; and
 2. to determine these students' performance when SGP is used as an assessment tool in an ethics and professionalism module.

Research Design and Methodology

- Research design – mixed method (pragmatic reasoning)
- Approach – Observations, assessment of documentary evidence (students' overall marks), and module evaluation feedback assessment
- Role-play was implemented in 2022/2023, and observation was noted.
- SGP was implemented in 2023/2024 as an assessment method to complement report writing.
- Students' overall marks across the two academic sessions were compared by empirically assessing the class average, minimum, maximum and class median.
- Student module evaluation feedback was thematically assessed.

Results (1)

Role-play in teaching ethics and professionalism in construction education

At the end of the role play, a thematic assessment of students' evaluation feedback was conducted, and the most common impacts were noted. These are:

- i. Role-play afforded students the ability to critically evaluate ethical issues ($f = 16$)
- ii. Students learnt of the possible issues that might occur when they start practising in the construction industry ($f = 16$)
- iii. Students learnt the importance of ethics in their profession ($f = 15$)
- iv. Students were able to view ethical issues from different construction participant's perspective ($f = 12$)
- v. Students enjoyed collaborating and interacting with others in a group setting ($f = 9$)
- vi. Role-play allowed students to build on their ability to communicate ($f = 5$)

Results (2)

Using student-generated podcasts to assess construction students' understanding of ethics and professionalism

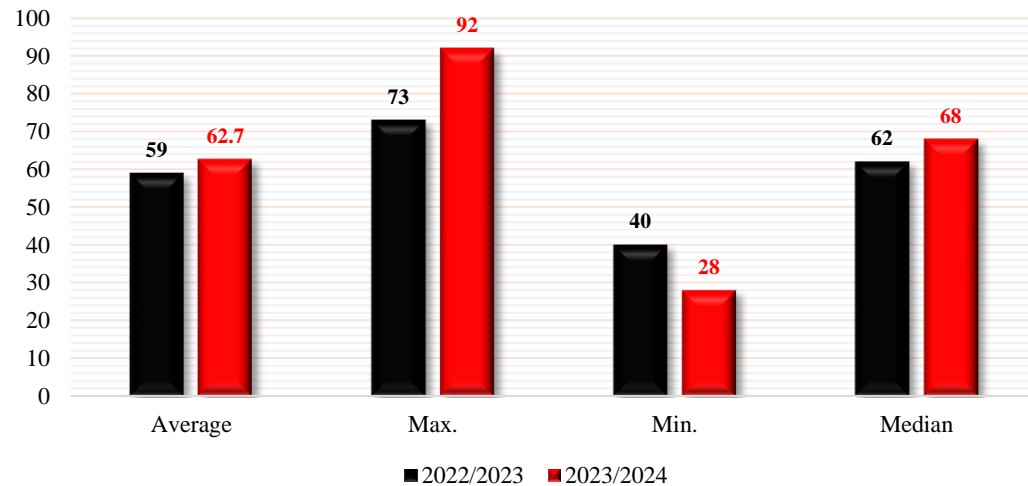


Figure A. Comparison of student performance between two years

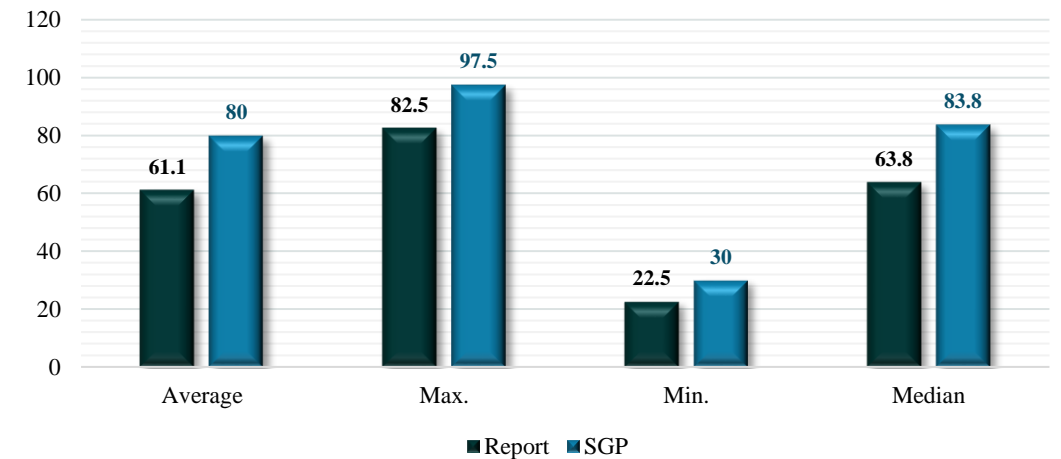


Figure B. Comparison between report and SGP as assessment tools

- Overall, students' performance increased when SGP was introduced in the second year to complement the use of report writing as an assessment tool.
- Also students performed better with SGP compared to report writing

Discussions, Conclusions & Recommendations (1)

- Overall, student-centred approach to learning in construction education is important for sustained teaching and learning.
- Construction students' understanding of ethics and ethical dilemmas can be improved through role-play.
- Role-play offers critical thinking, better understanding of ethical issues, evaluation of ethical issues from multiple viewpoints, improved communication skills and collaboration with peers.
- Also, using diverse assessment methods will offer better outcomes than using a single assessment approach.
- Innovative assessment methods like SGP are more enjoyable and beneficial in student performance than report writing.

Discussions, Conclusions & Recommendations (2)

Practical contributions

- By adopting role-play in exploring ethical dilemmas and using SGP in assessing students' understanding of ethics and professionalism, institutions can produce graduates who are better equipped with the knowledge of ethics and critical thinkers and problem solvers who can communicate effectively using audio and visual presentations.
- Institutions can produce graduates who can work in teams to achieve a common goal

Theoretical contributions

It offers a platform for a wider debate on diversifying construction programme delivery and assessment methods, mostly for theoretical topics like ethics and professionalism.