

Can peer tutoring improve academic performance in postgraduate education?



- Within higher education, there is often a disparity in academic achievement due to socioeconomic factors, such as ethnicity.
- Could peer-led learning between students help to improve academic outcomes?
- Research by Dr Anna Paolillo at Kingston University, UK, found that students attending peer-tutoring sessions had better study strategies and learning techniques, as well as improved psychological factors which helped to enhance their academic achievement.
- Widespread implementation of peer-led learning programmes is recommended throughout higher education.

Postgraduate education, such as master's and doctorate degrees, enable students to immerse themselves within their chosen field of study or research, at the highest level. Students must have gained an undergraduate degree or similar qualifications prior to their acceptance upon these courses. Despite having equivalent academic backgrounds, there is often a disparity in higher education course outcomes between different socio-economic groups, such as Black, Asian, and Ethnic Minority students. Educational institutions have a responsibility to deliver teaching that enhances academic performance and creates positive learning outcomes for all students.

What can help students to achieve well within higher education and reduce the disparities faced by minority student populations? One solution might be peer-led learning, which uses students to support their peers throughout their studies, in addition to traditional lectures and tutor groups run by faculty staff. Research demonstrates that this approach can improve academic performance while increasing retention and course attendance, especially within female student groups and those who are the first within their family to attend higher education.

Exploring the influence of peer tutoring

While there is evidence to suggest that peer mentoring and tutoring can have a positive impact on academic outcomes, there is less evidence about how far its influence may extend at postgraduate level. Dr Anna Paolillo and her colleagues from Kingston Business School at Kingston University, UK, have embarked on a research project to assess whether peer tutoring can mitigate the influence of socio-economic and psychological factors within postgraduate education. They aim to ascertain whether these programmes can be effective in enhancing psychological characteristics that have a positive influence on academic achievement, such as self-efficacy (believing they have the right abilities), resilience (staying strong in the face of challenges), and motivation (driving themselves forward to achieve goals). Dr Paolillo's project also investigated whether peer tutoring can prevent or reduce some of the disadvantages created by social and economic factors such as ethnicity, income, and parental education.

Examining the impact on current students

The research participants for this project were all students enrolled in master's degrees at Kingston Business School. There was an



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experimental group of 17 students who received peer tutoring across two study blocks. A further 23 students did not receive any peer support and therefore functioned as a control group, allowing for comparison. Prior to beginning their teaching, students in both groups had similar socio-demographic and psychological factors and were enrolled in similar programmes. Those in the experimental group attended fortnightly peer-led sessions, which provided guidance around upcoming assignments using active learning methods. Session leaders were current students who had recently passed the module and belonging to under-represented groups. In comparison, the control group had the opportunity to attend occasional drop-in sessions with the module teaching staff.

At the end of the first teaching block, focus groups helped collect feedback on the peer-tutoring approach. This gave the researchers the opportunity to make minor adjustments during the experimental phase. During the second teaching block, the initial survey was readministered to

students across both groups. These results highlighted the impact the peer-led sessions have had on the students' psychological resources and academic achievement. Students in the experimental group reported that the peer-tutoring initiative helped them to improve the organisation in their studies, especially when preparing for the assignments. They particularly found tips around learning strategies, such as mind maps and literature search techniques, to be extremely helpful. Those who attended the peer-led sessions consistently showed an increase in psychological resources such as optimism, self-efficacy, and resilience in relation to their studies, with results particularly pronounced in women and Asian students. These factors have been demonstrated to influence academic achievement in prior research, although mainly at undergraduate level.

Widespread implementation of peer-learning programmes across higher education will help to enhance academic achievement and create equal learning opportunities for all.

Additionally, specific data comparisons across the last two academic years within the same programme and modules (with same socio-demographic composition of students enrolled) revealed the following outcomes:

- Up to 20% increase in the pass rate at first attempt across all modules where the peer-tutoring initiative had been implemented.
- Increased satisfaction with each module and the whole course across all areas, including teaching and learning, level of support, and learning resources when compared to the previous year, with an increase between 7% and 26%.
- Additionally, comparisons with the previous academic year cohort within the same programme revealed a substantial decrease of the attainment gap for the year in which the peer intervention had been implemented (up to 13% decrease, with some modules reporting 0.5% attainment gap).

Evidence for use across higher education

Dr Paolillo's findings underlined that studying in a social context with peers rather than in isolation may have been determinant to the above-mentioned achievements. Peer tutoring also seemed to generate better organisation in students' learning and provided them with a more strategic approach to their studies as they became better at study time management and study plan development. Students were also less likely to believe their success was down to external causes rather than their own actions. As represented in prior research, the results from this project demonstrate peer tutoring to be effective, particularly for underrepresented groups and women.

Implementation to improve equity

These results provide support for the use of peer tutoring, especially within higher education settings and at postgraduate level. This approach can reduce the disparity in academic achievement due to factors such as gender and ethnicity, which should be a priority for all educational institutions. Dr Paolillo believes that best practice is to use students who have already completed the modules to function as peer mentors and tutors. Additionally, having peer tutors who reflect the neuro- and socio-demographic diversity of the beneficiaries would be advantageous. This study demonstrates that widespread implementation of peer-learning programmes across higher education will help to enhance academic achievement and create equal learning opportunities for all.

Personal response

How can higher education institutions best implement the findings from your research?

By investing financial resources into those types of initiatives, which allow to develop inclusive learning environments and make a significant difference in student experience and academic outcomes.

Do you think these learnings could be beneficial beyond the educational sector, where and why?

It might have interesting implications for learning and development outside higher education. Given the importance of social

environment within the workplace, a peer-tutoring approach could be particularly useful when learning new skills or improving existing ones.

What are the next steps in your research relating to peer-led learning?

It will be important to understand whether peer-tutoring can also have a positive effect when implemented through asynchronous support and resources. For instance, through the creation of materials (i.e., mind-maps) to guide students' independent learning in a more autonomous and self-paced way.

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Bio

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Further reading

Paolillo, A., Giatras, N., Kremis, A., Mangalore Harish, S. (2023) Addressing the postgraduate attainment gap : a research intervention on predictors of academic achievement and peer tutoring. In: The European Conference on Education (ECE2023); 13–17 Jul 2023, London, UK.

