

Students' perspectives of a peer-assisted learning initiative in a graduate-entry medical school

Emily Curley, Ailish Hannigan, Graduate Entry Medical School, University of Limerick

1. Background

- Peer-assisted learning (PAL) initiatives are well established within the informal medical curriculum.^{1,2}
- PAL programs are becoming increasingly recognized as effective educational adjuncts that are associated with improved student outcomes.^{4,5}
- To date, no studies have researched whether PAL-associated learning materials are valuable to medical students as an independent study resource; nor have any studies assessed the effectiveness of a PAL program in a graduate-entry medical school in Ireland.

2. Aims

To investigate students' perceptions of the PAL program, *Doctorials*, at the Graduate Entry Medical School (GEMS), University of Limerick. Specifically, this study aims to assess:

- GEMS students' overall satisfaction with the *Doctorials* program,
- Which feature of the *Doctorials* program is valued most by GEMS students,
- Whether GEMS students value the online *Doctorials* learning materials, and
- Whether GEMS students perceived being inspired to teach by the *Doctorials* program.

3. Methods

- Doctorials* is a voluntary, near peer-led review tutorial series designed to help students consolidate their medical knowledge in preparation for clinical placements and medical board examinations (i.e. USMLE Step 1 examination).
- A Year 3 student delivered 12 student-prepared PowerPoint presentations to Year 2 students throughout the 2016/2017 academic year; attendance was recorded at each session.
- A 15-question survey was created based upon Kirkpatrick's four-tiered model for program evaluation⁶; students voluntarily and anonymously completed the survey at the final *Doctorials* session.
- Descriptive statistics were used to summarize the data collected using Microsoft Excel.
- Ethical approval was received from the Faculty of Education and Health Sciences Ethics Committee, University of Limerick.

1. Creation of survey using Kirkpatrick's model of program evaluation

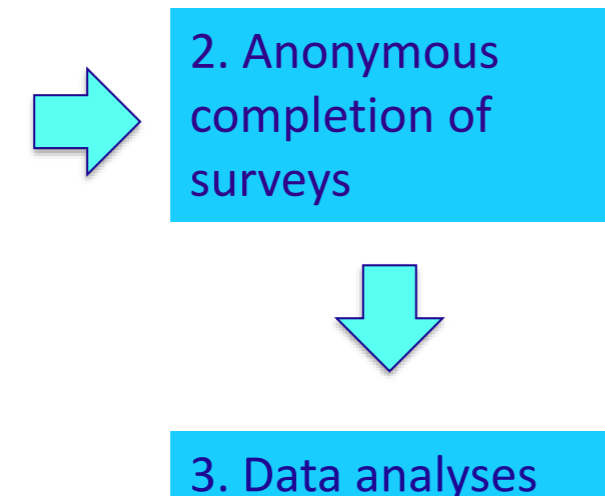
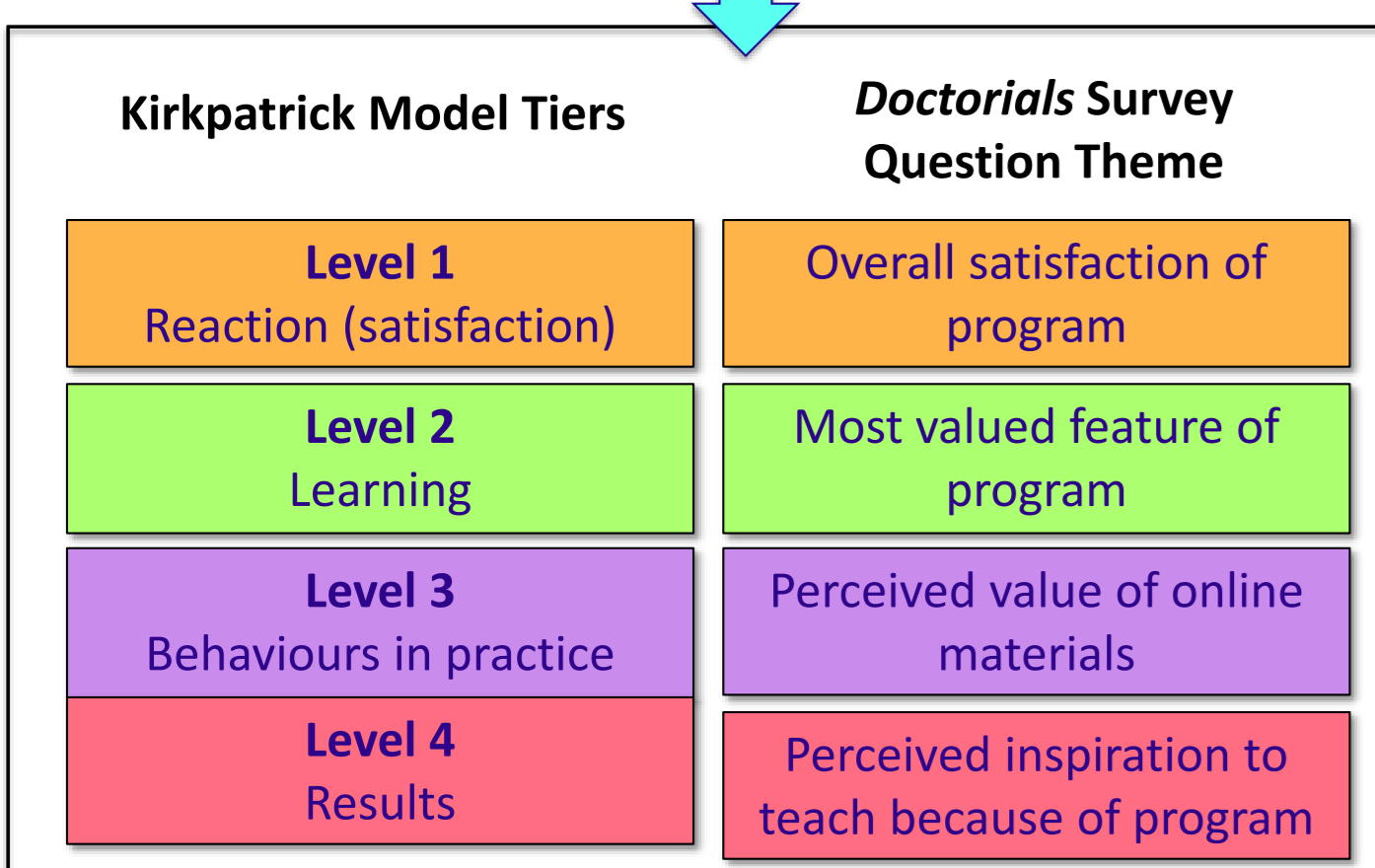


Figure 1. Methodology utilized for data collection and analyses.

4. Results

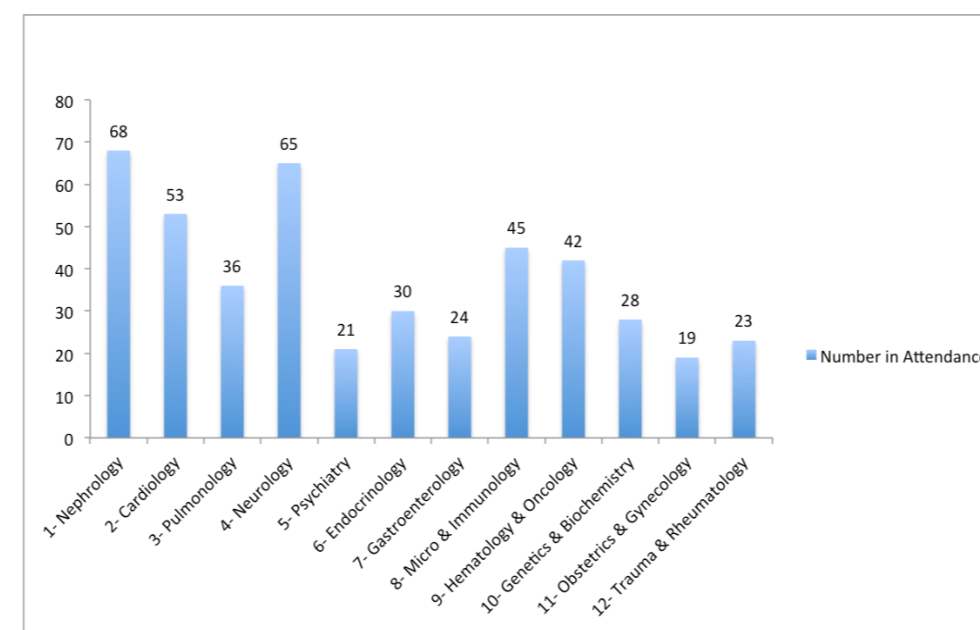


Figure 2. Number of students in attendance at *Doctorials* session in the 2016/2017 academic year.

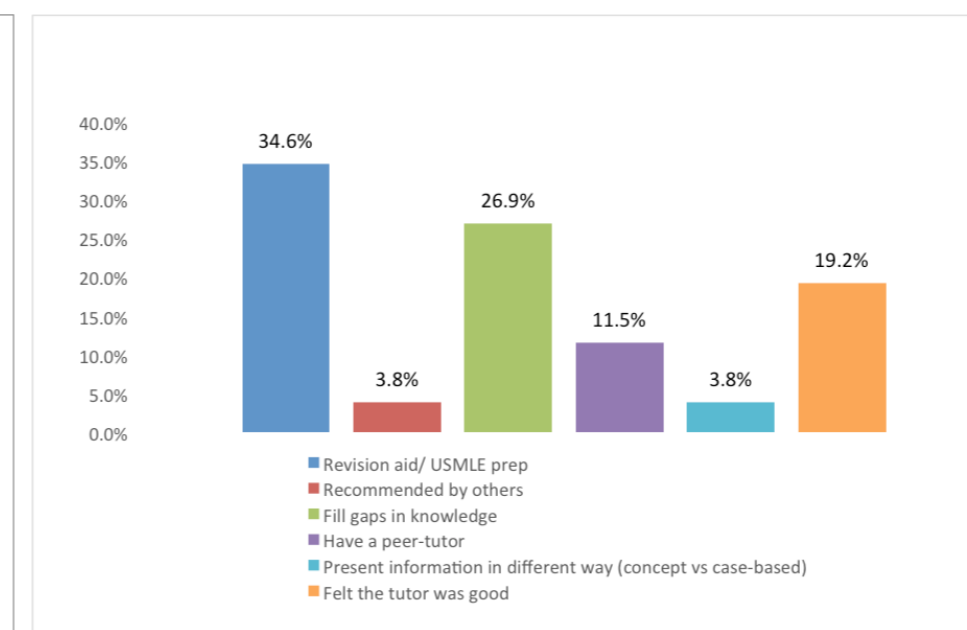


Figure 3. Student-identified reasons for attending *Doctorials* sessions (n=26).

Of a total of 151 Year 2 students, attendance at *Doctorials* sessions throughout the 2016/2017 academic year ranged from 19 (13%) to 68 (45%) students (Figure 1), with a median of 33 students. 26 students attended the final *Doctorials* session and all completed the survey. The most popular reason for attending *Doctorials* session was preparation for the USMLE Step 1 examination (n=9, 34.6%) (Figure 2).

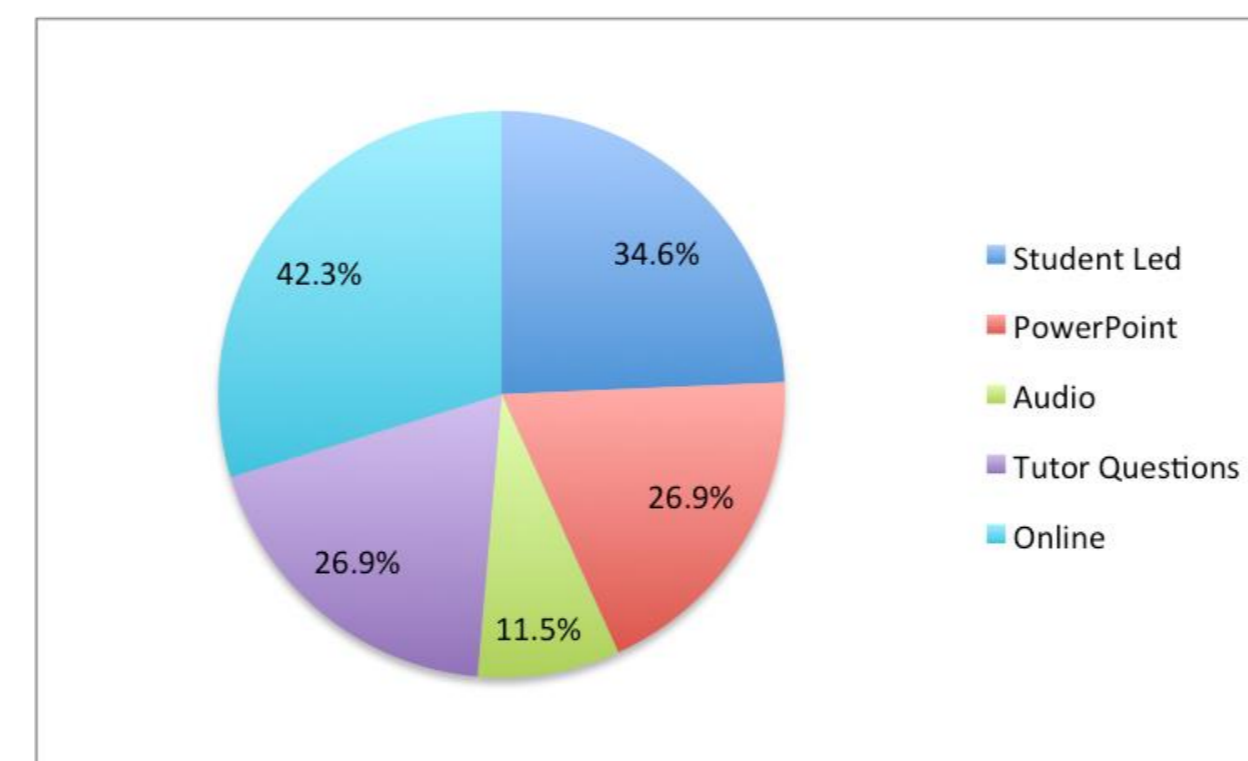


Figure 4. Participant-ranked features of the *Doctorials* perceived to be most helpful to their learning.

Overall satisfaction with the *Doctorials* program was rated 5/5 for 23 of the 26 survey responses. All of the participants strongly agreed (n=17, 65.3%) or agreed (n=9, 34.6%) that they wished for the *Doctorials* program to continue in future years. The most valued feature of the *Doctorials* program were the online materials (n=11, 42.3%) (Figure 4). Other valued features of the sessions were having the sessions led by another student (n=9, 34.6%) and having complex medical concepts presented in a step-wise fashion using PowerPoint animations (n=7, 26.9%).

Most participants strongly agreed or agreed (n= 22, 84.6%), that they used the online *Doctorials* materials for their self-directed study. Only n=12 (46.2%) participants agreed or strongly agreed that the *Doctorials* program inspired them to teach (Figure 5).

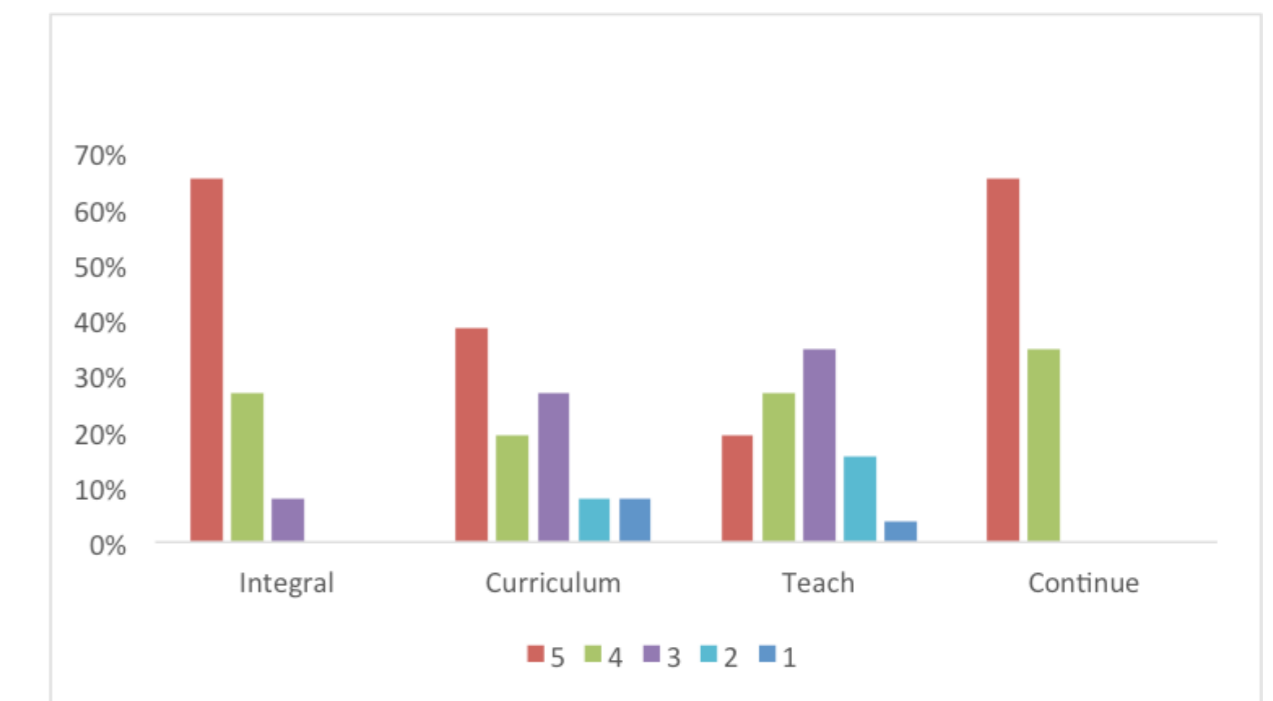


Figure 5. Participants' perceived level of inspiration to teach after attending *Doctorials* sessions based on 1-5 Likert scale ratings.

5. Discussion & Conclusion

- The *Doctorials* program at GEMS, University of Limerick was successful in its first year of operation with attendances ranging from 19 to 68 students.
- All survey participants wished for the program to continue in the future.
- Survey participants most valued the *Doctorials* online materials, and the majority of participants stated they used these materials as an independent study resource, which is a novel finding in PAL-related research.
- Most participants agreed that teaching is an important component of a physician's career, but the *Doctorials* program did not appear to greatly inspire students to undertake teaching experiences themselves.
- Although satisfaction was high and all students attending the final session participated in the survey, this study is limited by the small sample size and the fact that students opting to attend the sessions are likely to find them useful. There is no objective assessment of impact e.g. correlation with USMLE results and the views of those not attending were not captured.
- Further research on the *Doctorials* program is needed, with extension to other years and evaluation of outcomes.
- PAL programs, such as *Doctorials*, are playing an increasingly important role in medical education, particularly as an adjunct to pre-existing medical school curricula.

References

- Hodgson, Y., Benson, R., Brack, C. (2015). *Student conceptions of peer-assisted learning*. Journal of Further and Higher Education. 39 (4): 579-597.
- Zhang, J., Peterson, R., Ozolins, I. (2011). *Student approaches for learning in medicine: What does it tell us about the informal curriculum?* BMC Medical Education. 11: 87.
- Bulte, C., Betts, A., Garner, K., Durning, S. (2007). *Student teaching: views of student near-peer teachers and learners*. Medical Teacher. 29: 583-590.
- Menezes, A., Burgess, A., Clarke, A., Mellis, C. (2016). *Peer-assisted learning in medical school: tutees' perspective*. Advances in Medical Education and Practice. 7, 31-38.
- Huhn, D., Eckart, W., Karimian-Jazi, K., Amr, A., et al. (2015). *Voluntary peer-led exam preparation course for international first year students: Tutees' perceptions*. BMC Medical Education. 15: 106.
- Cook, D. (2010). *Twelve tips for evaluating educational programs*. Medical Teacher. 32: 296-301.

Acknowledgements

I would like to thank the Graduate Entry Medical School and Medical Society at the University of Limerick for their continued support of this study and the *Doctorials* program.