Collaborative learning: Students’ perceptions and experiences

THE UNIVERSITY of ADELAIDE

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# Abbreviations

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<tr>
<td>BDS</td>
<td>Bachelor of Dental Surgery</td>
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<tr>
<td>CL</td>
<td>collaborative learning</td>
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<td>CBL</td>
<td>case-based learning</td>
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<td>CSCL</td>
<td>computer-supported collaborative learning</td>
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<td>ILA</td>
<td>integrated learning activities</td>
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<td>JBI</td>
<td>Joanna Briggs Institute</td>
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<tr>
<td>PBL</td>
<td>problem-based learning</td>
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<tr>
<td>MASTARI</td>
<td>Meta Analysis of Statistics, Assessment and Review Instrument</td>
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<tr>
<td>QARI</td>
<td>Qualitative Assessment and Review Instrument</td>
</tr>
<tr>
<td>TBL</td>
<td>team-based learning</td>
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Abstract

Learning collaboratively has been used to develop attributes and skills needed by dental graduates in the 21st century and is suggested to have a number of advantages. However, it can be challenging for students in terms of self-directed learning and group cooperation. To design effective collaborative learning (CL) activities, we need to explore students’ perceptions of the core features of effective CL as students’ learning outcomes are influenced by their perceptions of their learning context. Therefore, the aim was to identify evidence about dental students’ perceptions and experiences of CL to optimise CL approaches and outcomes for the education of dental and health professionals.

This aim was addressed through two studies. **Study One** was a comprehensive systematic review of the best available qualitative and quantitative evidence about dental and medical students’ experiences of CL. **Study Two** aimed to explore students’ understandings of the core elements necessary for learning collaboratively.

Following methods and tools recommended by the Joanna Briggs Institute for systematic reviews, 19 papers of acceptable quality were included in the systematic review. The review identified students’ perspectives regarding positive and negative factors that influenced their learning. Positive factors included maintaining group cohesion, intra-group relationships, and relevant and balanced collaborative interactions to facilitate student learning. A lack of motivation, elaboration, and/or cohesion hindered student learning. Gaps were identified in the current evidence base regarding students’ collaborative learning. These gaps included students’ perceptions about how learning occurs (or doesn't), their goals when learning in a CL setting, and their understandings of the role and management of conflicting knowledge. This review also identified a need for more focused studies to add to the current evidence. Therefore, the second part of this thesis aimed to address these gaps.

**Study Two** explored students’ understandings of collaborative learning from a constructionist interpretive methodological perspective. Using a purposeful sampling strategy, first-year (n=14) and fourth-year (n=14) students at the Adelaide School of Dentistry (Ethics Approval: HS-2013-001) participated in focus groups and subsequent
email communication to contribute data on group learning. Each focus group was audio-recorded and professionally transcribed.

Consistent with the literature, students perceived that various features of the group made their learning a positive experience, and that a range of contextual factors facilitated or inhibited learning in their group. In addition, students acknowledged that the group learning experience provided them with key academic and social support.

Concerning the gaps identified in Study One, students’ perceived that their learning was enhanced through sharing and researching their different opinions, and their learning was strongly mediated by questioning and explaining to each other, which helped them clarify doubts, improve their understanding, and reinforce their knowledge. Learning processes involved visualising, linking and comparing prior learning with new information, thinking about its relevance, and reorganising it to create a simplified story: key theoretical elements of CL.

This thesis contributes to dental education by addressing the limited research evidence about students’ understanding of the elements necessary to learn collaboratively. Assisting students to understand the role of these learning processes and to develop key skills of questioning and explaining to each other, and the consequent positive contribution of their group interactions on learning could improve their CL experiences and outcomes.
I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and, where applicable, any partner institution responsible for the joint award of this degree.

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First and foremost I wish to thank and express my sincerest gratitude to my principal supervisor, Associate Professor Tracey Winning, whose expertise, understanding, and patience added considerably to my PhD experience; without her commitment and guidance, this project would not have been possible. I appreciate her vast knowledge and skills in many areas, and the assistance, moral support and freedom she provided that allowed me to move on. She has nurtured my academic curiosity and provided her full support and inspiration for which I am truly grateful.

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Achievements during candidature

Refereed publications
The contents of Chapters 2–6 have been published in the Joanna Briggs Institute database of systematic reviews and implementation reports as follows:


Published abstracts


Conference presentations

Oral presentations


Poster presentations


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