



## Small TLEF Project – Final Report

Report Completion Date: (YYYY/MM/DD)

### 1. PROJECT OVERVIEW

#### 1.1. General Information

<b>Project Title:</b>	<b>Peer Facilitation and Assessment in Case Based Learning in the Renewed Medical Curriculum: a Pilot</b>		
<b>Principal Investigator:</b>	<b>Dr. Pawel M. Kindler (with Dr. Tracy Pressey as Co-Investigator)</b>		
<b>Report Submitted By:</b>	<b>Dr. Pawel M. Kindler</b>		
<b>Project Initiation Date:</b>	<b>Feb 2014</b>	<b>Project Completion Date:</b>	<b>Aug 2015</b>

#### 1.2. Project Summary

The UBC MD Undergraduate Program is undergoing a major renewal process. One of the changes involves a shift from Problem Based Learning (PBL) to Case Based Learning (CBL). This project was designed to pilot and assess a process for the use of peer facilitation and peer feedback, both considered as important strategies to increase student engagement, optimize learning and stimulate active participation, in CBL.

In Stage 1 of the project, conducted in the summer 2013, four 3<sup>rd</sup> year medical students were hired to adapt 4 existing PBL Reproduction cases to CBL, adapt corresponding peer facilitation (PF) Guides to CBL, and review and edit the existing peer feedback forms. In Stage 2, conducted in the spring and summer 2014, 16 second year medical student volunteers were recruited to participate in peer facilitation and provide peer feedback during a 4-week long Reproduction Block. Each student committed to peer facilitating (PF) one tutorial. The ability of the PF CBL group to progress through the cases was assessed at the end of each tutorial through completion of brief feedback forms rating the effectiveness of the session; the overall group dynamics, including the ability of the group to cope with difficulties and/or conflict; and the effectiveness of individual peer facilitators. Following the last tutorial in the block, the participants engaged in providing peer assessment of three of their group mates by completing on line anonymous feedback forms and commenting on their peers' overall level of participation in all phases of the CBL learning process, facilitation skills and willingness to participate in the teaching of others, communication skills, including the ability to provide support and constructive criticism, teamwork skills and professionalism. The students also evaluated the overall project by commenting on the quality of learning in the peer facilitated environment, including main strengths and weaknesses of this approach to CBL tutorial process, and the effectiveness of CBL cases as well as the format, appropriateness and overall value of peer feedback. In the summer of 2014, three participants were hired to analyze the results from Stage 2, revise PF Guides, revise peer feedback forms and recommend changes to peer feedback protocol, develop "PF Tips and Approaches" document, and propose recommendations for future implementation of class-wide peer facilitation and peer feedback.

In Stage 3, conducted in the spring and summer 2015, a new cohort of 16 second year medical student volunteers was recruited. These students engaged in peer facilitation and peer feedback as described for



Stage 2 above but followed new protocol and used updated documents developed in the summer 2014. Two participants

from Stage 2 were then hired during the summer 2015 to provide final analysis of the data and update the document on class-wide implementation.

**1.3. Team Members** – (Please fill in the following table and include **students**, undergraduate or graduate, who participated in your project).

Name	Title/Affiliation	Responsibilities/Roles
Dr. Pawel Kindler	Senior Instructor, Department of Cellular and Physiological Sciences, Faculty of Medicine, UBC	Principal Investigator
Dr. Tracy Pressey	Clinical Assistant Professor, Department of Obstetrics and Gynecology, Faculty of Medicine, UBC	Co-Investigator
Michael Hsiao Jaspreet Lidder Julia Schneiderman Jennifer Verhelst	MD students, UBC	To assist with adapting four existing PBL Reproduction cases to the format of CBL and assist with developing guides that enable and support implementation of strategies involving peer facilitation and feedback.
Evan Baker Annie Ma Lauren Whitehead	MD students, UBC	To analyze the data from a pilot conducted during the Reproduction Block in March 2014, develop “Tips and Approaches” document, and assess the effectiveness and recommend improvements for future implementation of peer facilitation and feedback.
Jennifer Clune Ellie Parton	MD students, UBC	To analyze the data from a pilot conducted in March 2015 and to finalize recommendations for a class-wide implementation of peer facilitation and peer feedback in the renewed medical curriculum.

**1.4. Student Impact** – Please fill in the following table with **past**, **current**, and **future** courses and sections (e.g. HIST 101, 002, 2017/2018, Sep) that have been/will be impacted by your project, including any courses not included in your original proposal (you may adapt this section to the context of your project as necessary).

Course	Section	Academic Year	Term (Summer/Fall/Winter)
Foundations of Medical Practice (FMED)	Reproduction Block (FMED 427)	2013-2014 & 2014-2015	Winter
Foundations of Medical Practice	MEDD 412, 421 & 422	Once implemented class-wide	



## 2. PROJECT EVALUATION

**2.1. Project Outcomes** – Please list the intended outcomes or benefits of the project for students, TAs and/or instructors.

Benefits included:

- Further development of communication skills
- Opportunity to practice providing to, and receiving from peers constructive feedback
- Making direct contributions to the process of curriculum renewal
- Gaining experience in medical education research and dissemination of results

**2.2. Findings** – Briefly describe the methods and findings of your project evaluation effort: to what extent were intended project outcomes achieved or not achieved?

As described in Project Summary above, the pilots were evaluated through completion of multiple brief evaluation forms following each tutorial and, at the end of each pilot, a final evaluation form to provide feedback on the overall experience and the effectiveness of peer facilitation and peer feedback. Overall findings of both pilots clearly demonstrated a benefit to students in several ways: improved learning environment, novel skill development, peer feedback opportunities, and a positive experience. The shared responsibility for learning increased productivity and engagement. The students' feedback highlighted not only an improvement in motivation but also development of new skills often lacking elsewhere in curriculum. In particular, important CanMeds roles such as a leader, collaborator, communicator, and scholar were practiced and learned using this session style. Pilot findings clearly indicated that peer facilitation is beneficial to both students and facilitators, providing valuable opportunities for learning.

**2.3. Dissemination** – Please provide a list of scholarly activities (e.g. publications, presentations, invited talks, etc.) in which you or anyone from your team have or intend to disseminate the outcomes of this project.

### Conference Proceedings

Clune, J., Parton, E., Pressey, T., and **Kindler**, P. (2017) Peer Facilitation and Feedback: Findings and Insights from Small Group Based Learning Pilots – A Novel Way to Learn and Gain Skills? *To be presented at The Canadian Conference on Medical Education, Winnipeg, MB*

Clune, J., Parton, E., Pressey, T., and **Kindler**, P. (2016) Peer Facilitation and Feedback: Findings and Insights from Small group Based Learning Pilots – A Novel Way to Learn and Gain Skills? *CHES Celebration of Scholarship, Vancouver, B.C.*

Clune, J., Parton, E., **Kindler**, P. and Pressey, T. (2016) Peer Facilitation and Peer Feedback: Developing Professional Competencies while Improving Engagement and Learning.

- 16<sup>th</sup> Annual Academic Day, Department of Obstetrics and Gynecology, UBC. (Best Clinical Poster Presentation)
- UBC Students in Health Annual Research Conference (SHARC) (People's Choice – Poster Presentation)
- UBC Clinician Investigator Program 16<sup>th</sup> Annual Research Fellows Day (1<sup>st</sup> Honourable Mention – Poster Presentation)



Baker, E., Ma, A., Whitehead, L., Pressey, T. and **Kindler**, P. (2015) Peer Facilitated Case-Based Learning in Undergraduate Medical Education: Students' Perspective. *The Canadian Conference on Medical Education, Vancouver, B.C.*

Baker, E., Ma, A., Whitehead, L., Pressey, T. and **Kindler**, P. (2014) Peer Facilitated Case-Based Learning In Undergraduate Medical Education. *CHES Celebration of Scholarship, Vancouver, B.C.*

#### Work in Progress

Clune, J., Parton, E., Pressey, T and **Kindler**, P. Peer Facilitation and Peer Feedback: Developing Professional Competencies while Improving Engagement and Learning. Manuscript to be submitted to a peer review medical education journal. 60% completed.

### **3. TEACHING PRACTICES** – Please indicate if **your** teaching practices or those of **others** have changed as a result of your project. If so, in what ways?

The results of this project clearly indicated that with proper guidance, students are capable of establishing a well-functioning, intellectually stimulating and highly productive small group tutor-less learning environment. Our results challenge a widely accepted assumption that successful small groups require the presence and direct support of faculty tutors. These findings directly informed my own, and that of many of my colleagues, understanding of our roles as small group tutors.

### **4. PROJECT SUSTAINMENT** – Please describe the sustainment strategy for the project components. How will your work be sustained and/or potentially expanded (e.g. over the next five years)?

As mentioned above, current efforts are focused on class-wide implementation of peer facilitation and peer feedback in the year 2 CBL curriculum of the renewed medical program. If successful, this innovative approach to small group learning will impact at least 288 students in each academic year.