A Formal Case-based Peer Assisted Learning Session in Undergraduate Medical Curriculum: Malaysian Medical Students' Thoughts and Beliefs

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Introduction

Peer-assisted learning (PAL) is increasingly used in higher education as an academic support system. Several benefits of this approach have been reported (Khalid et al, 2018). Most of the studies have focused on peer tutoring of junior students by senior students or peer leaders teaching students at the same level (Burgess, McGregor & Mellis, 2014). We used a model where all the students were at same level and received equal opportunity to be involved in **collaborative learning** and teaching their peers as a **shared responsibility**.

Aim

The **Aim** of the study was to assess the effectiveness of peer led group activity in improving problem solving skills. This was measured in terms of student satisfaction and their perception of how useful the learning activity was.

Research Questions:
1. Does collaborative problem solving session and peer teaching enable students to achieve the intended learning outcomes?
2. How best can we facilitate sessions to improve student satisfaction and learning ?

Methodology

Mixed Methodology

Quantitative
Questionnaire

Purposive Sampling
- Stage 3 M.B.,B.S students during Women's health Rotation
- n=67

Data Analysis
Statistical analysis

Qualitative
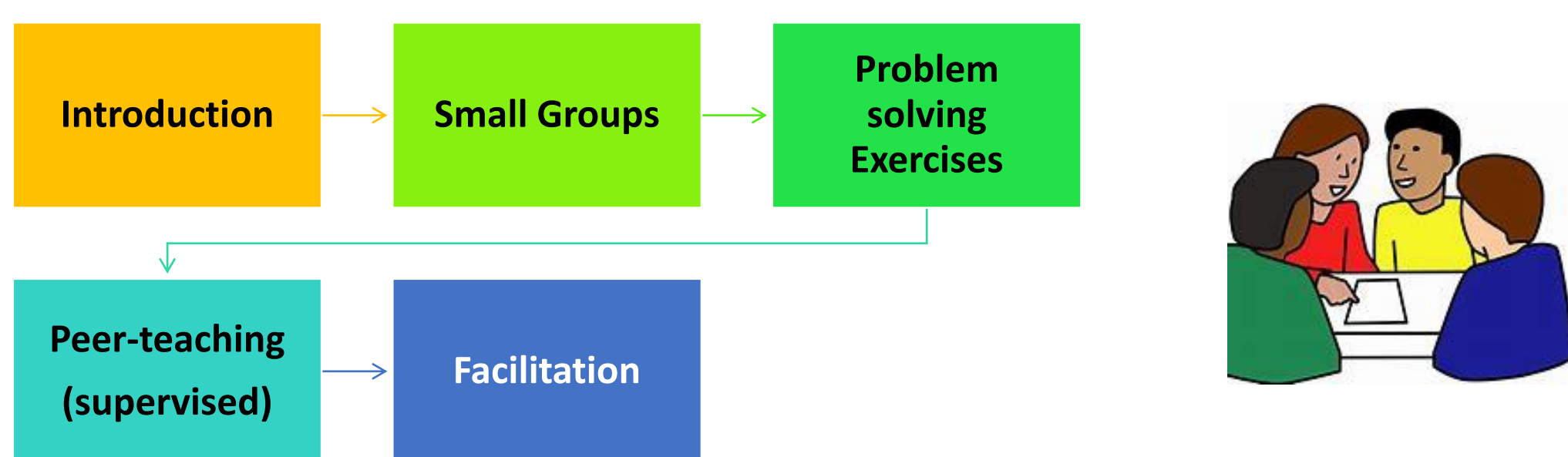- Free text comments
- Focus group discussion (FGD)

Purposive sampling
- Stage 3 M.B.,B.S students during Women's health Rotation
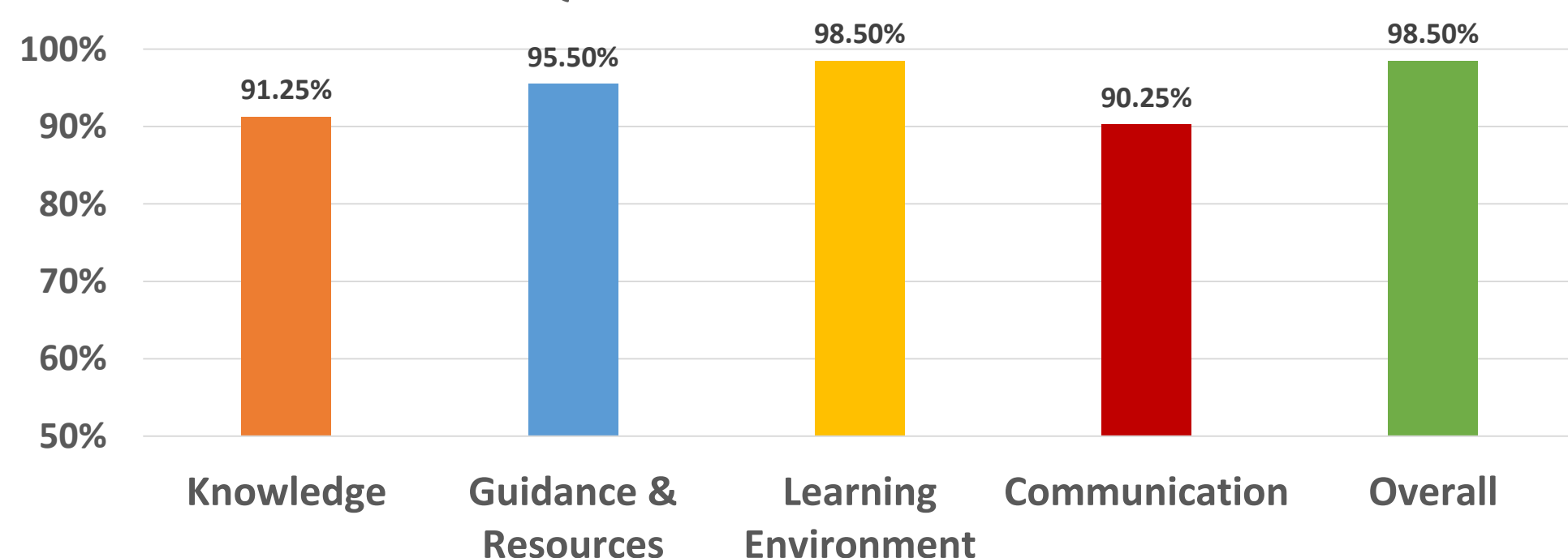- n=5 for FGD
- n=67 for free text comments

Data Analysis
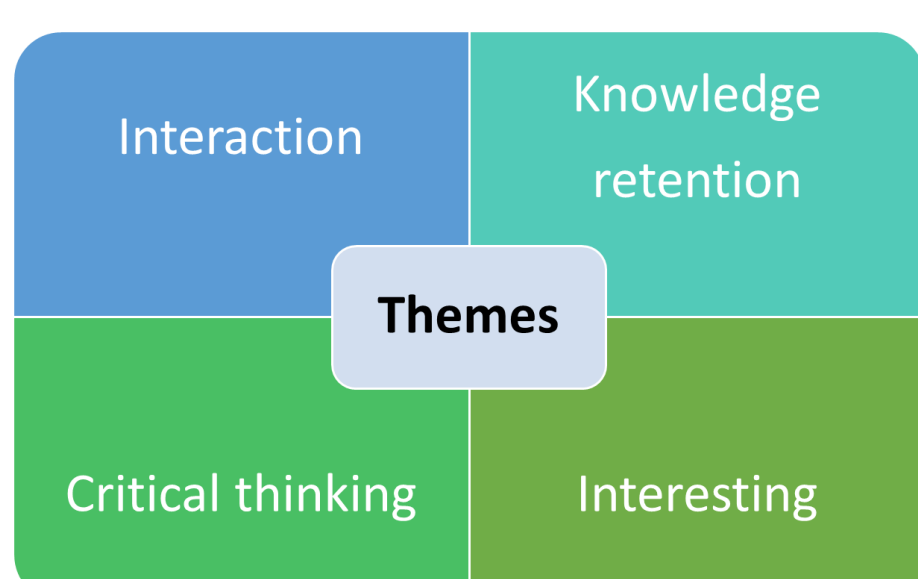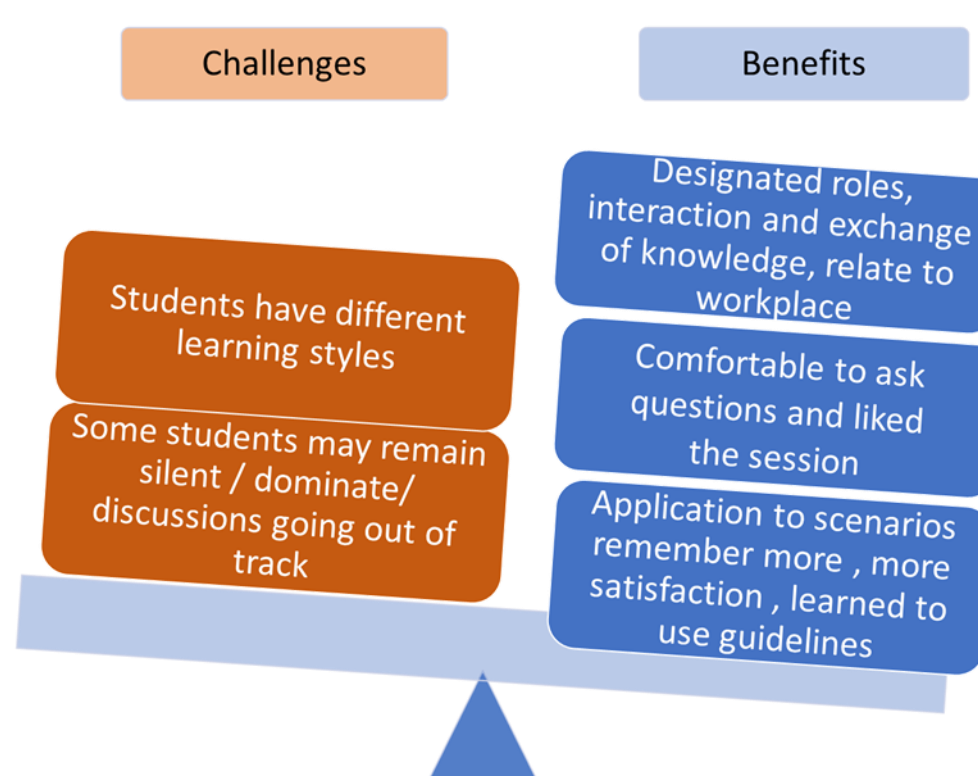Thematic analysis

Methods: PAL Session

Introduction → Small Groups → Problem solving Exercises → Peer-teaching (supervised) → Facilitation

Results

Questionnaire Results

Category	Value
Knowledge	91.25%
Guidance & Resources	95.50%
Learning Environment	98.50%
Communication	90.25%
Overall	98.50%

Thematic analysis

Themes: Interaction, Knowledge retention, Critical thinking, Interesting

Reflections

Challenges
- Students have different learning styles
- Some students may remain silent / dominate/ discussions going out of track

Benefits
- Designated roles, interaction and exchange of knowledge, relate to workplace
- Comfortable to ask questions and liked the session
- Application to scenarios remember more , more satisfaction , learned to use guidelines
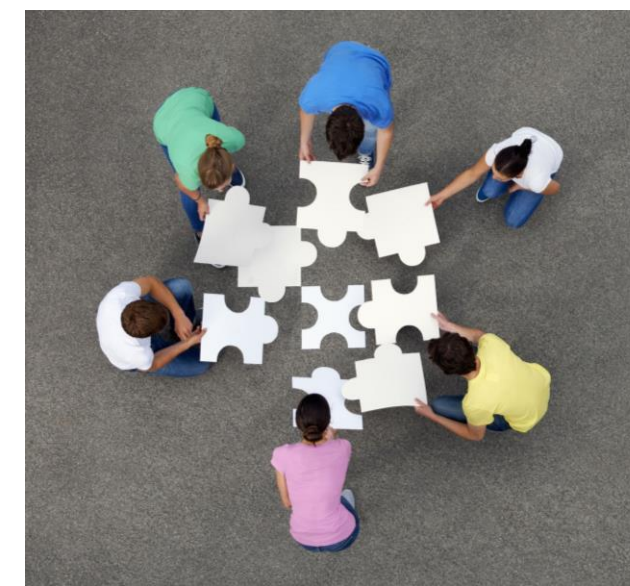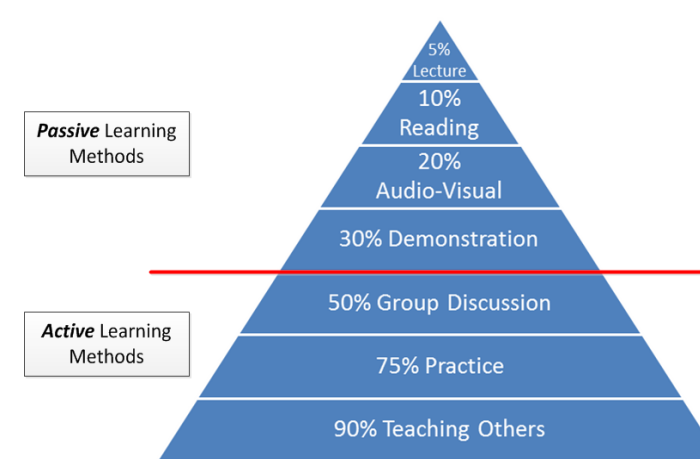
Discussion

Vygotsky's Social Constructivist Theory
→ **Collaborative learning Knowledge** is co-constructed with the social context of the learners. Peers interact and assist one another to learn different academic ideas.
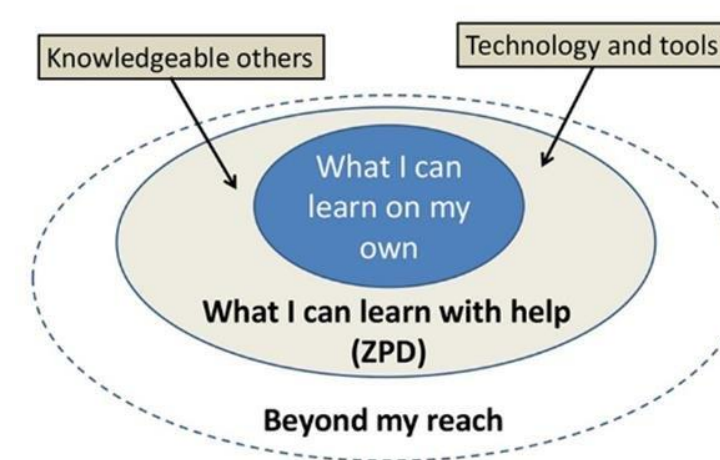
Kolb's Experiential Learning Theory
→ **Effective learning** can be seen when the learner progresses through the cycle of learning, reflecting, conceptualizing and experimenting.

Learning Pyramid (Edgar Dale)
→ Group discussions, practicing and teaching others lead to higher levels of **knowledge retention**. PAL supports all these active learning methods.

Vygotsky's ZPD
→ **Learning environment** Fostering the right learning environment enables effective and enjoyable learning and increases student's confidence.

Conclusion

- Students identified many **benefits** of PAL.
- They perceived PAL as a **great opportunity** to learn and improve their study skills.
- Interactions in the class made learning more **effective and enjoyable**.
- Discussions of cases **promoted critical thinking** and knowledge retention.
- Overall, the student's feedback shows an **excellent satisfaction rate** and a valuable learning experience in a **safe environment.**

Future Implications

- **More opportunities** to participate in similar PAL sessions might encourage students who have different learning styles to engage in discussions and improve their confidence.
- Implementing and evaluating the impact of PAL in **different modules** might provide more robust data to use in other educational settings.

References

Burgess, A., McGregor, D. & Mellis, C. (2014). Medical students as peer tutors: a systematic review.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4237985/

Khalid, H., Shahid, S., Punjabi, N.& Sahdev, N.(2018). An integrated 2-year clinical skills peer tutoring scheme in a UK-based medical school: perceptions of tutees and peer tutors.
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