



The Impact of Enquiry-Based Learning on Phase II MBBS students in Microbiology

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INTRODUCTION

- Learner-driven acquisition of knowledge
- Inquiry promotes self-directed learning
- Fosters higher level thinking through exploration

OBJECTIVE

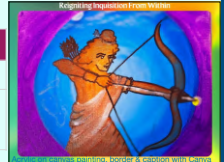
To examine the impact of enquiry-based learning on student engagement, critical thinking and problem-solving skills.

METHODOLOGY

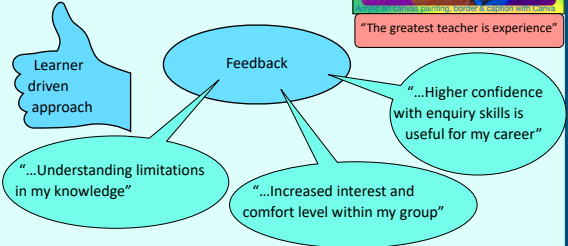
Type of study: Observational study.
Sample: 42
Timeline : 3 months
Inclusion criteria: Phase II MBBS students
Study Setting: Large & Small Groups in Classrooms
Sampling technique: Convenient

Results

	Pre test	Post test	P Value
Participants	42	42	
Mean	44.86	49.69	0.042
Variance	151.02	91.88	



"The greatest teacher is experience"



Ethical Committee Clearance

Pre Test on Topic

Orientation to topic

Group discussion

Questioning and conceptualisation

Investigation into the topic

Analysis to interpret the findings and conclusion

Sharing with others

Post test on Topic

Data Analysis

- MCQs in Pre and post-test
- Paper-based anonymous Feedback and Reflections
- MS Excel & Google forms to collect & analyse
- Student t/ Z test for p-value. (≤ 0.05 – level of significance)



Image 1-Question Framing



Image 3-Sharing with others

Hypothesis generation

Reflections

- Group working in coordination towards a common goal
- I will prioritise teamwork over individual participation
- Understanding of each person's strengths and weaknesses

Guided and Open-ended enquiry

Collaborative learning with peers helps understanding concepts

Discussion & Conclusions

- Moon, J. A. et al (2019): Complex task into simpler subtasks
 - Nadkarni, A. et al (2023): Greater engagement & clearer learning objectives
- Present study (2024):**
- Increased interest in inquisitive behaviour of learners
 - Improved scores after the exercise
 - Promotion of a climate of curiosity



Image 2- Interpretation

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