

# INTEGRATING TRADITION WITH TECHNOLOGY TO ASSESS THE IMPACT OF BLENDED LEARNING IN HISTOLOGY AMONG FIRST PHASE MEDICAL UNDERGRADUATE STUDENTS: AN INSTITUTION BASED STUDY



Dr Aradhana Sanga<sub>1</sub>, Dr Rita Kumari<sub>1</sub>, Dr Babita Kujur<sub>1</sub>, Dr Rajiv Ranjan<sub>1</sub>, Dr Kumari Sandhya<sub>2</sub>

1. Assistant Professor, 2. Professor Department of Anatomy, Rajendra Institute of Medical Sciences, Ranchi, Jharkhand  
Presenter: Dr Aradhana Sanga, Email: [aradhana.sanga5@gmail.com](mailto:aradhana.sanga5@gmail.com), Mob: 9002898525

## INTRODUCTION

Student's engagement is poor with the traditional format of histology which includes the projection of slide and its discussion in the dark room followed by looking at the slides under the microscope, the diagrams drawn as a homework and corrected by faculty in the next class, use of blended learning along with formative assessment is suggested to solve these issues. This approach will not only assess knowledge, but help in reinforcement of psychomotor skill and its certification. [1-4].

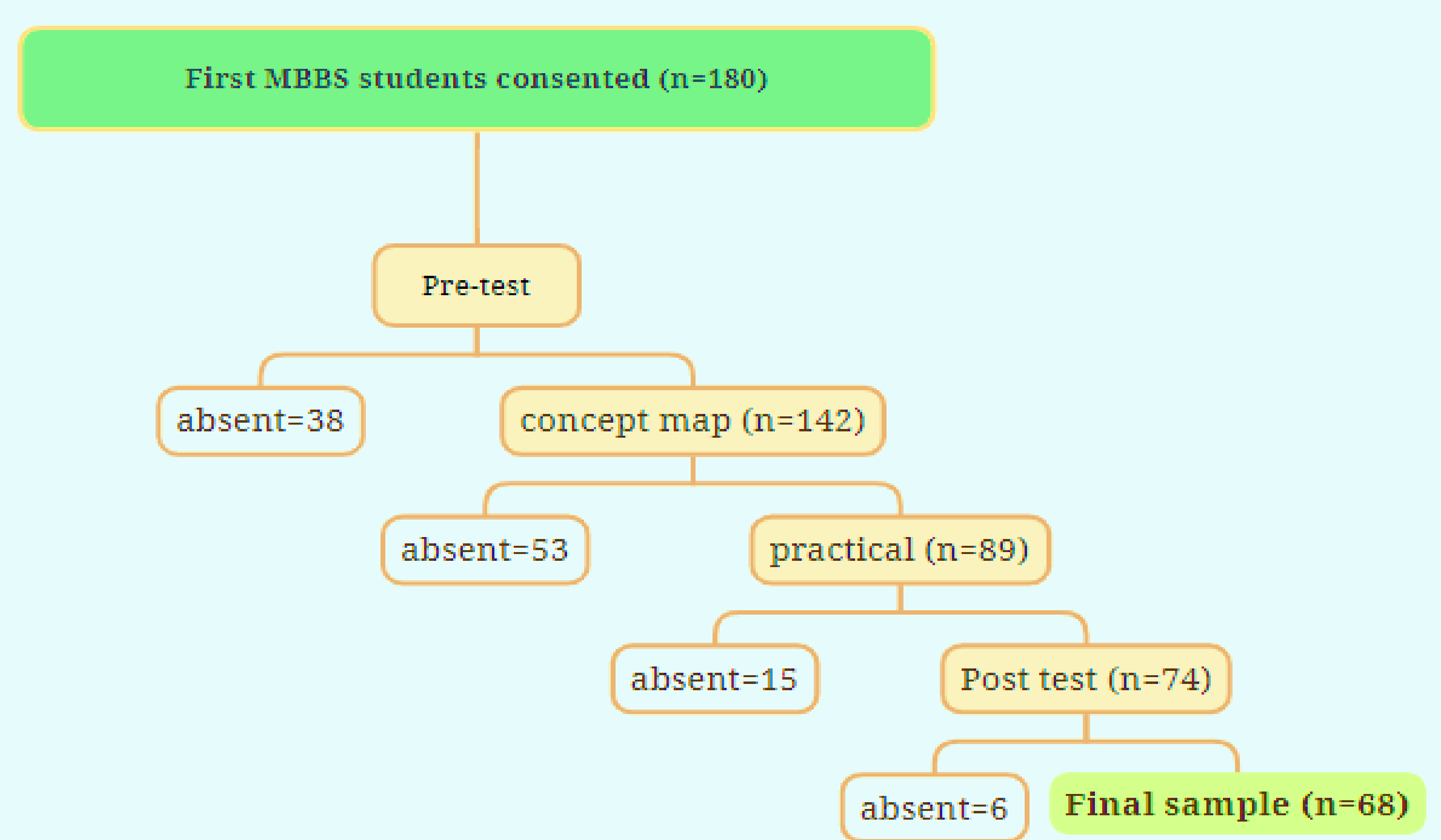
## OBJECTIVE

- PRIMARY:** To assess the effectiveness of using a new intervention of blended learning with formative assessment in histology teaching.
- SECONDARY:** To assess the perception of students about implementation of Blended learning as a Teaching- learning tool.

## METHODOLOGY

- A Cross-sectional Study was conducted on 180 MBBS phase 1 students to evaluate the effectiveness of the new intervention applied *both during theory and practical class. It comprised of pre-test just after theory class. Sharing the online resource reference material for making and submitting concept maps two days before practical class. In the practical class drawing of histological diagrams, slide discussion and post-test were taken.*
- Study period:** 6 months
- Study subject:** 180 MBBS Phase 1 students of RIMS, Ranchi. Jharkhand
- Inclusion:** Student who completed all the 3 module pre/ post- test, concept map and attended the practical classes.
- Data collection:** The blended learning approach is depicted in the flowchart below.
- IEC approval certificate:** letter no- 96 dated 07.03.24

## STUDY FLOWCHART



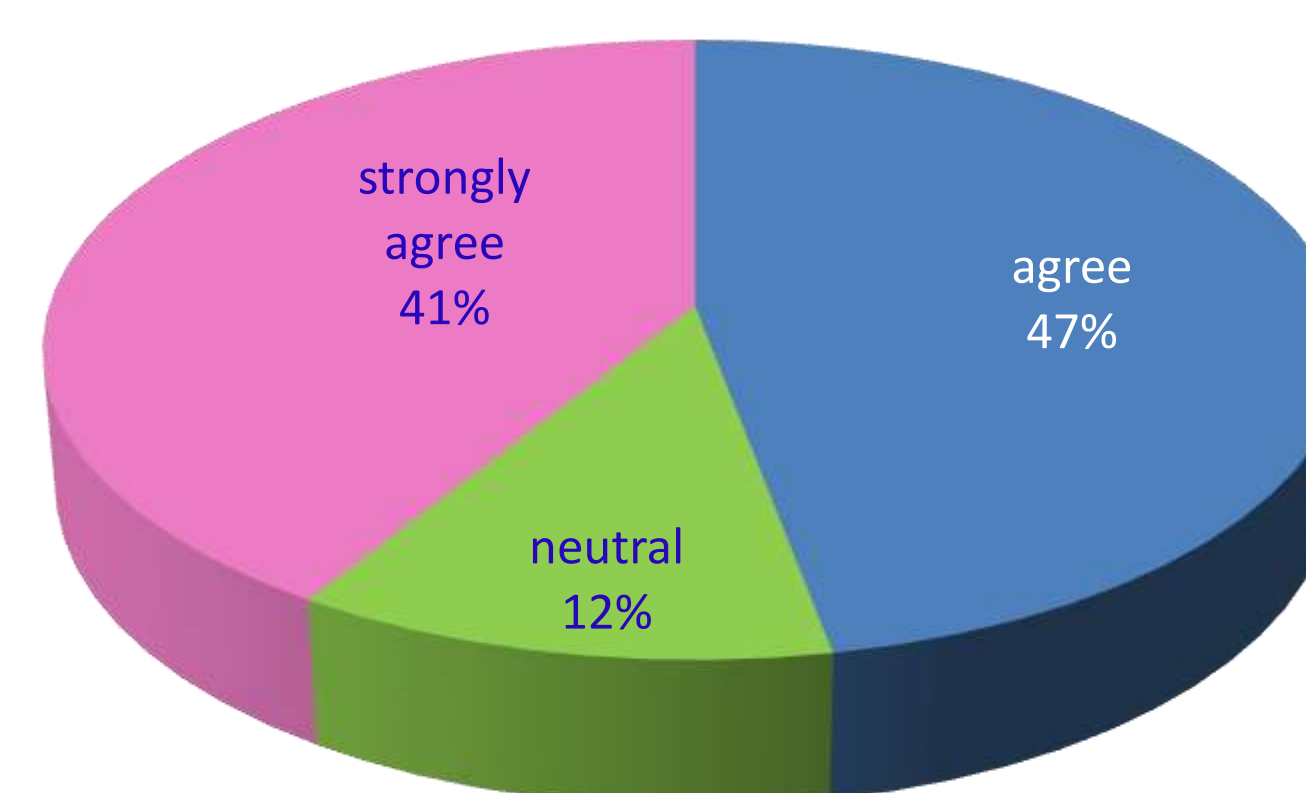
## STATISTICAL METHOD

- Paired t-test was used for comparing pre-test and post-test scores and descriptive statistics was used for feedback of student and facilitator represented here as graphs.

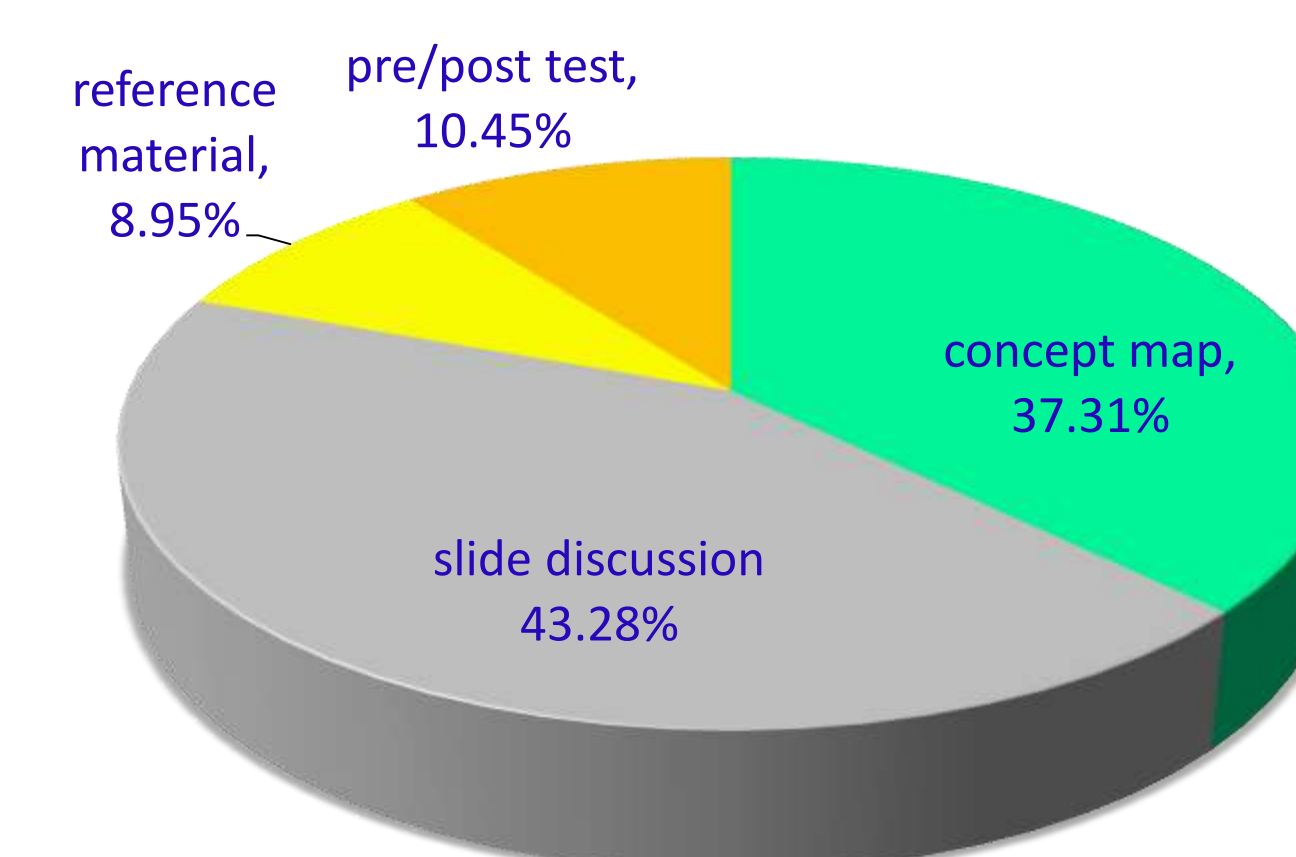
## RESULT

The difference in score were normally distributed as assessed by Shapiro Wilk test  $P=0.096$  ( $>0.05$ ). There were no outliers. Participants score improved with a post-test  $14.12 \pm 3.02$  as opposed to pre-test score  $11.06 \pm 3.12$ . The intervention elicited an increase of mean score = 3.14 with 95% CI, 2.35 to 3.94 in the participants after the intervention which was statistically significant  $t=7.892$ ,  $df=67$ ,  $p$  value = 0.000

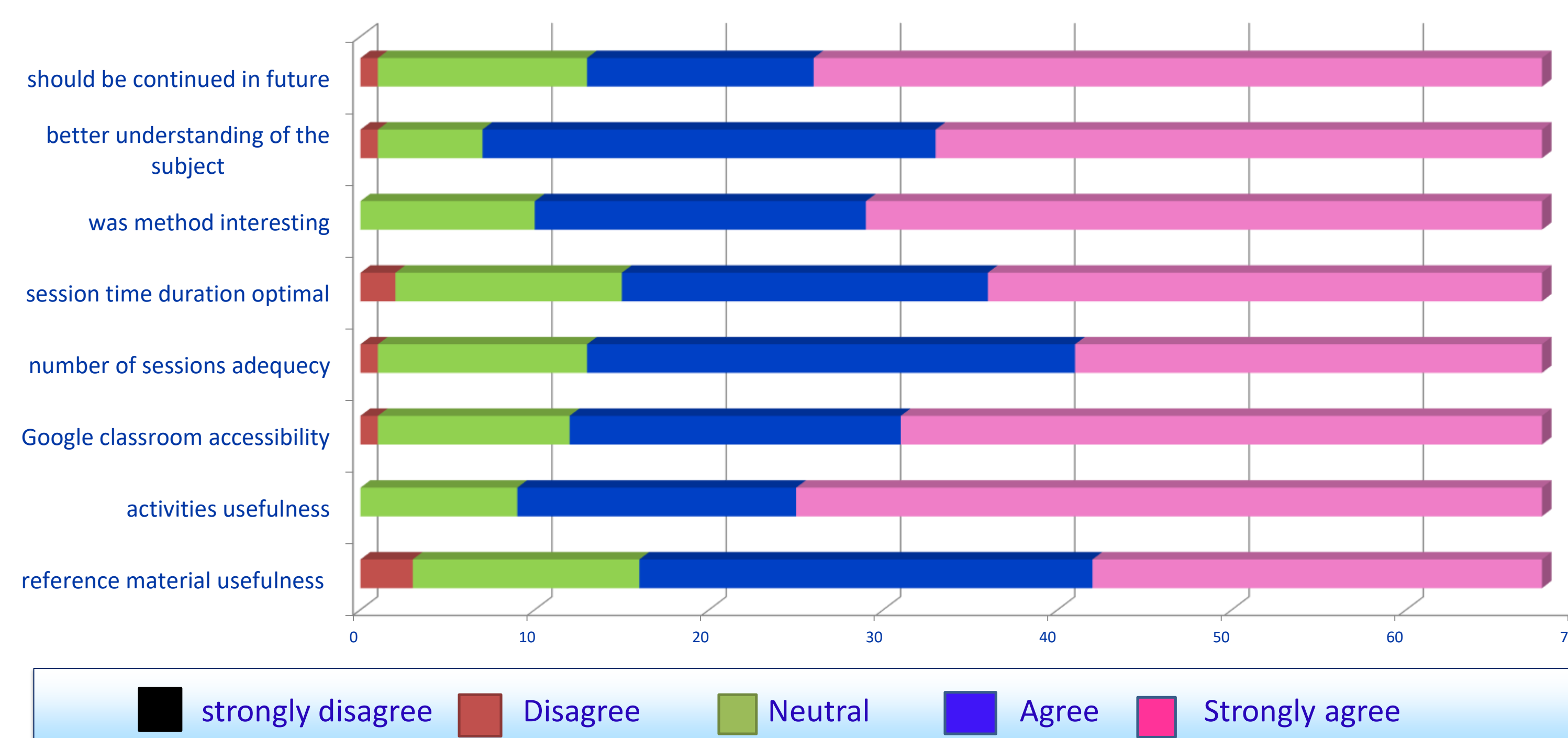
### Promotion of SDL



### Most effective blended learning Approach



## Blended learning approach- way forward



## Student's feedback

### CONCLUSION

- Blended learning can be considered to reinforce the cognitive aspects of histology as evident from the increased mean score.
- From the results of the study blended learning is proved to enhance the psychomotor skills of tissue identification and hence help in certifying the skill developed.
- According to students feedback obtained we can now infer that this new method promotes Self-directed learning. Slide discussion as well as concept map prove to be the most effective ways in doing so.

### REFERENCES

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