



# Expansive Horizons: Understanding the Experiences and Insights of Medical Students Participating in a New Distance Learning Environment

Kristina Kaljo PhD<sup>1</sup>, Matthew Tews DO<sup>2</sup>, Robert Treat, PhD<sup>2</sup>

Medical College of Wisconsin, Milwaukee, WI 53226

<sup>1</sup>Department of Obstetrics and Gynecology, <sup>2</sup>Department of Emergency Medicine

## INTRODUCTION

- The Medical College of Wisconsin (MCW) established a new three-year regional campus as of July 2015. To maintain continuity and high-quality learning experiences between the Milwaukee and Green Bay campus, MCW employed bidirectional digital classrooms with initial basic science courses. Faculty taught students primarily from the Milwaukee campus, engaging students at both campuses simultaneously.

## PURPOSE

- The purpose of this study was to examine student and faculty perceptions and experiences with distance learning by using a mixed methods approach.

## METHODS

- Funded by the MCW Learning Resource Fund
- Three facilitated focus groups:
  - 20 Milwaukee M-1 medical students
  - 22 Green Bay M-1 medical students
  - 21 Teaching Faculty
- Transcripts were thematically coded with Nvivo10. IBM® SPSS® 24.0 analyzed Likert scale survey data using Mann-Whitney *U*-tests. Interval-level data analyzed with independent t-tests and stepwise multivariate linear regression.

### Three Focus Group Themes

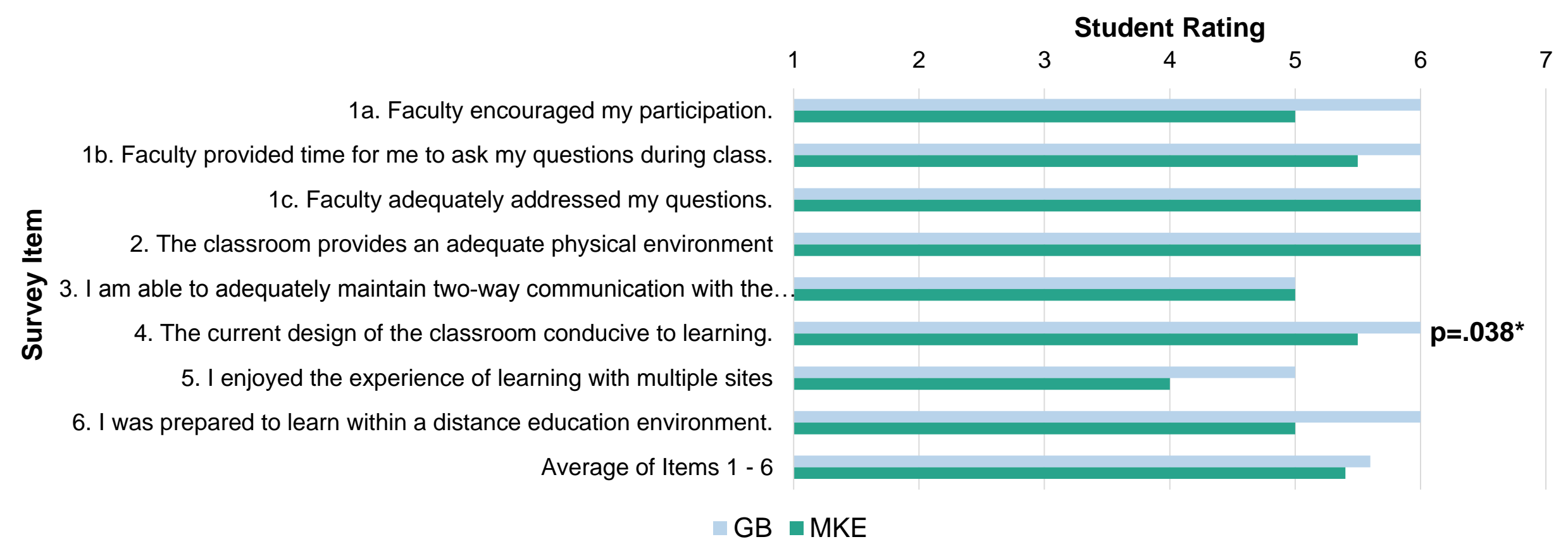
1. *Construction of a knowledge-based community of practice*
  - Groups of individuals who share similar interests and/or shared problems
  - Collaborate to address solutions or seek further information
2. *Responsiveness to diverse learning styles*
  - How different learning styles are addressed
  - Collaborate to address solutions or seek further information
3. *Negotiating teaching and learning in a bidirectional classroom*
  - Participant awareness of both facilitators and barriers to a conducive learning environment

## SELECTED QUOTES

1. *Construction of a knowledge-based community of practice*  
“Interacting with Milwaukee students during the outing was helpful because a bunch of us talked about the perceptions we had about one another. It was nice to clear up the negative perceptions” (Green Bay Student)
2. *Responsiveness to diverse learning styles*  
“People learn in different ways and stay engaged in different ways, our teaching will impact that” (Faculty)
3. *Negotiating teaching and learning in a bidirectional classroom*  
If a professor makes a joke or asks an important question, you can hear and feel a buzz throughout the lecture hall. You can’t transmit that through a microphone to Green Bay. That’s a disconnect” (Milwaukee Student)

## RESULTS

**Fig: Student Survey Median Ratings Split by Campus**



- There was no statistically significant difference ( $p < .184$ ) between overall student experience rating (Mean (SD)=7.0 (0.8)) and faculty experience rating (6.0 (1.0)).
- The current design of the classroom was the only statistically significant predictor of student’s overall experience in a multivariate linear regression ( $R^2=0.41$ ,  $p < .008$ ).

## CONCLUSIONS

- Students appreciated their voices were ‘heard’ to express concerns
- Students interpreted greater connectivity when they had opportunities to interact (trips to Green Bay and Madison)
- Implement techniques where students can ask questions and discuss in real-time, perhaps implementing a discussion board or through FaceTime video.
- Develop a best practices list to avoid particular errors and strategies when teaching in the distance environment.

## REFERENCES

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.