

Strategies for Virtual Interaction to Promote Student Engagement, Motivation, and Relationship Building in a Remote Learning Environment



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Presentation Roadmap

1. An introduction to the University of Nebraska Medical Center and our transition to remote learning
2. Strategies we employed to enhance student engagement, motivation and connectivity
3. An overview of our remote learning survey and ongoing efforts



The University of Nebraska Medical Center (UNMC)

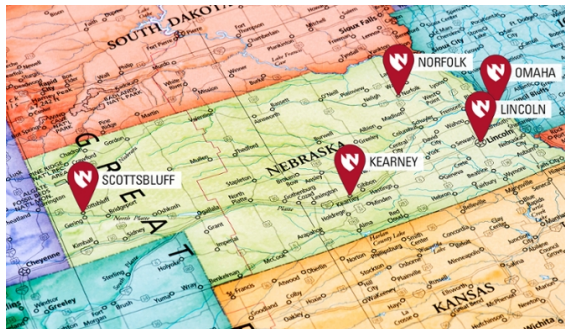
Six colleges (Allied Health Professions, Dentistry, Medicine, Nursing, Pharmacy, Public Health) + Graduate school

Five campuses: Some programs on multiple campuses

>4000 students

Wide range of health sciences degree programs (certifications, bachelors, professional and doctorate)

Canvas learning management system, ECHO360 Universal Capture used for lecture recordings



UNMC College of Medicine: Transition to Remote Learning

March 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

March 12: Official announcement of transition of remote learning in the College of Medicine

March 16: Remote learning begins

March 16: Renal block begins

April 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

April 6: Neurosciences block begins

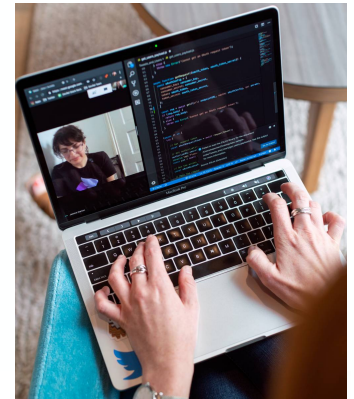


Remote Lectures and Student Engagement: Approaches Used and Lessons Learned

Asynchronous Lecture Recordings:

- 1) Existing lecture recordings from previous academic year
 - Easy implementation and mostly well received
 - Students missed “seeing” faculty
 - Added synchronous, virtual office hours and review sessions by zoom (with screen sharing) to provide “face time”
 - Challenges:
 - disconnects created by updated lecture notes and course schedule changes

- 2) Newly prepared lecture recordings
 - Required more time & training/equipment to implement
 - Better received than old recordings
 - Best when faculty member “visible”
 - Some made several shorter recordings/lecture hour
 - Discussion boards in Canvas used for questions



Remote Lectures and Student Engagement: Approaches Used and Lessons Learned

3) Synchronous lectures using Zoom (with screen sharing)

Recorded to allow for later asynchronous viewing
Increased facetime, interaction & questions
Incorporated planned pauses for questions
Encouraged use of chat & raise hand functions

Challenges:

Multitasking: hard to lecture, “see” individual students, monitor chat and raise hand functions
Technology and internet issues

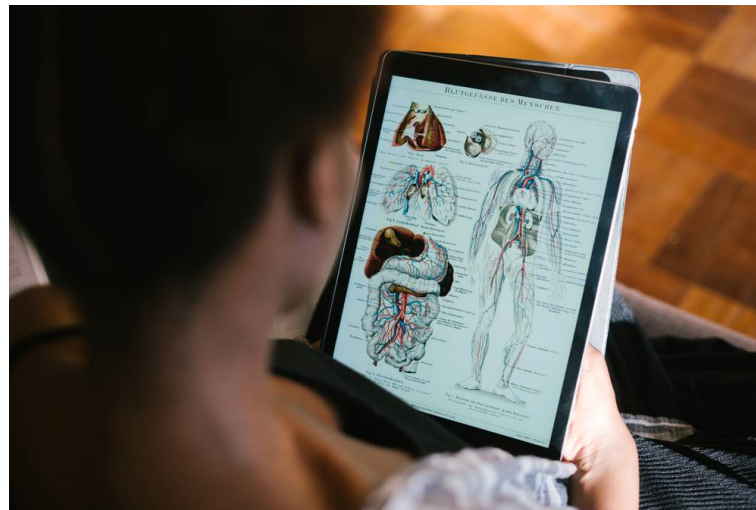
Potential Solutions:

Include second faculty member at each session to monitor chat & raised hands, deal with technical issues, serve as back up in case of internet problems



Remote Anatomy/Histology Labs and Student Engagement: Approaches Used and Lessons Learned

- 1) Asynchronous anatomy and histology labs
 - New, pre-recorded dissection videos & instructional videos for histology
 - Existing virtual microscopy platform & digital lab manuals
 - Synchronous, virtual office hours and review sessions used to promote interaction, engagement, provide face time
 - Challenges same as with asynchronous lectures
 - Students missed hands on learning



Remote Anatomy/Histology Labs and Student Engagement: Approaches Used and Lessons Learned

- 2) Synchronous neuroanatomy lab sessions using Zoom
 - Station-based approach transitioned from the anatomy lab to remote environment
 - ~12 students/group, 6 stations/session, 20 minutes/station
 - 1 faculty/station, 2 sessions/week
 - Uses Modified, flipped-classroom approach
 - Digital lab manual and questions for each station provided in advance
 - Sessions not recorded so review videos also provided
 - Also held synchronous virtual office hours, review sessions



Remote Anatomy/Histology Labs and Student Engagement: Approaches Used and Lessons Learned

Advantages of synchronous neuroanatomy lab sessions using Zoom:

1. Used synchronous sessions as opportunities to monitor student well-being and engage with students.
2. Enhanced focus and relationship by building in free time/ time to chat between each session
3. Monitored attendance, followed up with students who did not attend
4. Promoted relationship building and continuity by keeping students with their existing assigned, small groups used for case-based learning

April 9, 2020

April 10, 2020

1:00 – 1:20

1:00 – 1:20

1:30 – 1:50

1:30 – 1:50

2:00 – 2:20

2:00 – 2:20

2:30 – 2:50

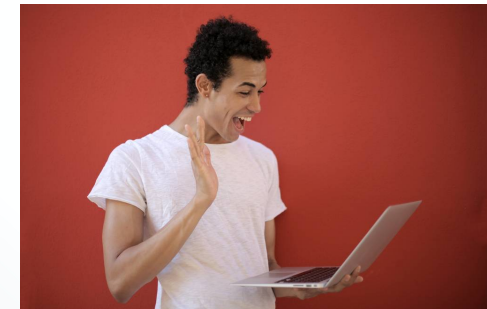
2:30 – 2:50

3:00 – 3:20

3:00 – 3:20

3:30 – 3:50

3:30 – 3:50



"It was great to see your friendly faces and to know that you are all supporting our class from a distance.... Thank you for using our Zoom sessions as a way to check in with the students. We all appreciated the sentiment!"



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Remote Anatomy/Histology Labs and Student Engagement: Approaches Used and Lessons Learned

Challenges of synchronous neuroanatomy lab sessions using Zoom:

- Internet/Zoom issues
- Timing/communication between instructors during lab sessions
- Monitoring multiple devices, lines of communication during lab sessions
- Not all students enabled their video/had video capabilities
- No one answering questions or students talking over each other
- No hands-on learning

Potential Solutions:

Include second faculty member at each session

Use asynchronous discussion boards in Canvas for each group before sessions

- Enhances interaction, preparation, and ID students who will answer each question

Provide students with video equipment and 3-D printed models of some structures



Other Effective Strategies to Enhance Student Engagement and Motivation in a Remote Learning Environment

1. Post regular announcements with greetings and reminders to reconnect/re-engage learners
 - We can't overcommunicate with our students
2. Reply to emails, discussion board posts ASAP to maintain sense of connection
3. Use a variety of platforms to communicate with learners
4. Infuse virtual office hours/reviews with fun, social element
5. Use synchronous breakout rooms for small group activities
 - Promotes interaction during longer synchronous, large group learning sessions
 - Virtual social activities to promote connection and relationship building



Planning for In-Person and Remote Learning in the Fall: A Data-Driven Approach



Data Sources:

Course Evaluations from Spring and Summer

Student Focus Groups

UNMC Remote Learning Survey

University of Nebraska Medical Center's Remote Learning Survey

Overall Goals:

1. Determine impact of remote learning on educational outcomes during COVID-19 pandemic
2. Identify challenges associated with remote learning encountered by students, faculty and staff

Organized by UNMC Campus Assessment Committee
IRB approved, distributed prior to end of spring semester

1045 respondents
708 students
224 faculty
110 staff

20 different questions, some common across all groups
Demographic and educational information captured
Surveys completed anonymously

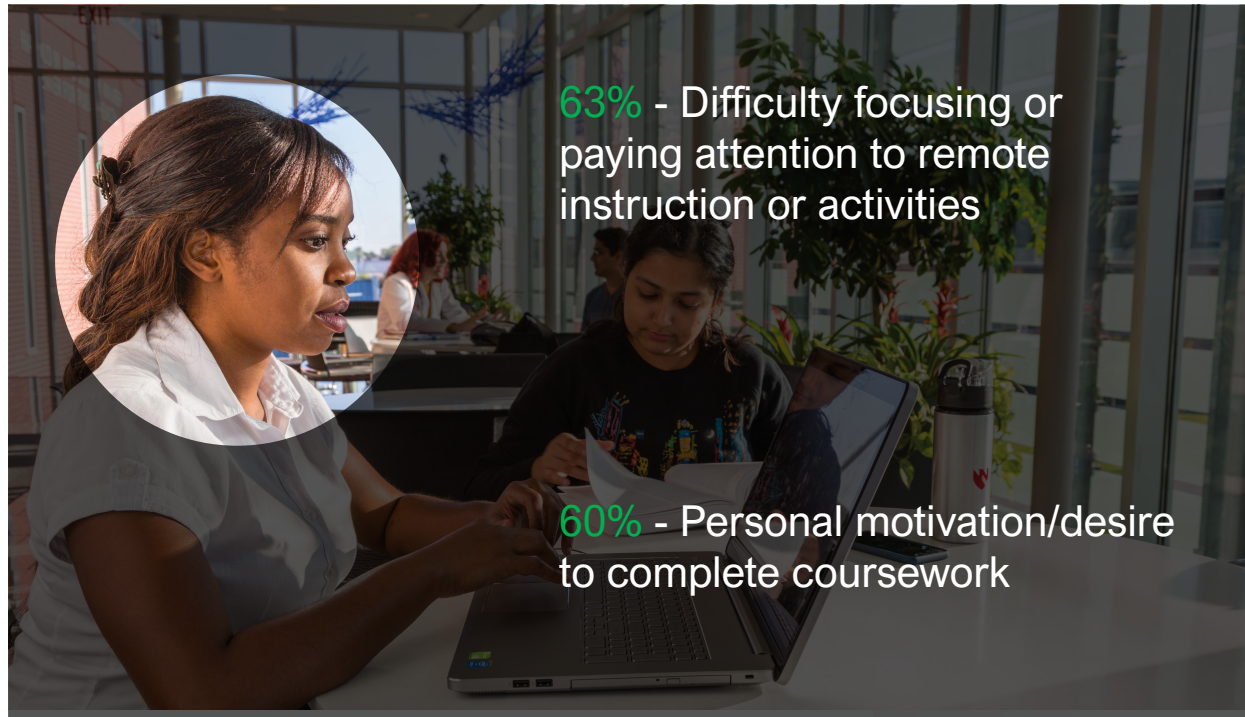


Effects of remote learning on educational outcomes during COVID-19 quarantine

Students' Responses



Which of the following learning/educational issues have been a challenge for you since transitioning to remote learning?



What are your biggest concerns with the transition to remote learning?



What kind of improvements in remote learning would you like to see in the future?

35% - Clearer remote learning policy expectations

34% - Greater access to quiet, safe learning spaces

28% - More interaction with classmates



Effects of remote learning on educational outcomes during COVID-19 quarantine

Faculty Members' Responses



What are your biggest concerns with the transition to remote learning?

58% - Diminished student learning

45% - Security/privacy in proctoring online exams

35% - Not being able to communicate with my students



What kind of improvements in remote learning would you like to see in the future?



UNMC Remote Learning Survey: Some Key Takeaways

Most students and faculty report only a small decrease in quality of education, but....

- ~2/3 students expressed difficulty focusing & lack of motivation in remote learning environment
- Students and faculty both want more interaction in the remote learning environment
- Faculty need more support with technology for remote learning environment



Acknowledgements:

The Department of Genetics, Cell Biology and Anatomy Faculty



Remote Learning Survey: Kendra Schmid, PhD, Andrew Robertson

Questions?

