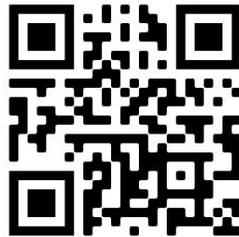


Career Development Committee

Zoom Breakout Room Collaborative Document

“How Do We Deliver Anatomy Education During the Novel COVID Learning Environment?”

AACA CDC Virtual Lunch Meeting - Thursday, June 18, 2020



<https://bit.ly/CDClunch>

Please select a scribe for your group.

Next record your group's discussion points for the following 5 questions.

If time permits, there are questions 6 and 7.

Question #1

How are you planning to deliver **anatomy lecture** content in the fall?

Potential discussion ideas: Live recordings or pre-recorded lectures? What platform are you using to deliver lecture content? Faculty-created content (PowerPoint, Voice Thread or a Voice-over PowerPoint platform, Complete Anatomy, Visible Body, etc...) or pre-recorded content (e.g. Lecturio, Acland Videos, Khan Academy, Anatomy Zone)?

Please share the discussion points offered in your breakout group

1. Asynchronous and synchronous sessions via Zoom- video clips and recorded lectures, TBL, group activities in Qualtrics, live lectures with social distancing w/ online option, synchronous online lectures, learning modules. Using ultrasound/incorporating imaging is not possible for most part.
2. Asynchronous delivery of content via faculty recorded and pre-recorded resources; live sessions to review/reinforce/activities; all online delivery; live lectures and recording them to post; zoom meetings will be used to Q&A, draw things/explain; International - different academic calendar, many students returned home w/o technology resources so online was challenging and rely on asynchronous learning via recorded PPT slides and had to be careful about file size with technology limitations, Zoom hasn't worked too well given limitations; Live lectures using collaborative ultra, 25-50% attendance in lecture and live engage with Blackboard Collaborative Ultra, rotating students for on campus class/learning; unsure how lecture content will be delivered likely prerecorded and case based learning based on administration
3. Zoom, Blackboard Collaborate, pre-recorded, narrated lectures disseminated to students to review in their own time, Q&A on Zoom/Microsoft Teams, no live lectures. One is doing live lectures, but keep a stock of "backup" pre-recorded lectures to use if live session fail. One institution was surveyed and said they prefer live lectures.
- 4: All of the above methods for med.school students (anatomy interactive guides with all didactic content & inbuilt quizzing, built-in cadaveric dissections); use plastinations & no cadaver, streaming labs; still trying to figure out the plan with increased covid cases, increased social distancing figuring out spacing in lecture halls; small pilot program in Virginia, robot measures students temp currently for about 40 students for lecture in person & lecture recording; lecturing live & capturing it in some way for 75 students divided into maybe 3 sub-groups
5. Recorded, narrated ppts for most content delivery, some synchronous live Zoom meetings with Q & A = hope of pre-recorded lectures allows extra time for rotating students through the lab; mix of live Zoom and pre-recorded; live on virtual platform with consideration to the student schedule (i.e., coming in for labs); Mayo - live Zoom or blackboard collaborate lecture (team taught - PhD & clinician or other faculty) = all post recorded for student access later; all institutions have platform for students to view lecture content after delivery; Zoom, google class, WhatsApp

Breakout room 7: Online, pre-recorded lectures with close caption, recorded lectures and then have Q and A sessions. Half of students in class and half in zoom. Some will deliver lectures via zoom. Review sessions before class will be conducted on zoom. It is important to include closed-captions for any students who might have hearing loss, or for those who might benefit from both reading and listening to online/pre-recorded content.

9. Pre-recorded lectures, Zoom delivered lectures, activities during lectures, iPad activities during lecture (e.g., drawing activities), activities through Blackboard LMS, breakout rooms, involving other experts/clinicians via Zoom, synchronous & asynchronous material, labeling activities in Powerpoint, summative assessment = powerpoint images with multiple choice questions.

Breakout Group 8

- Flipped classroom with pre-class activities (e.g., pre-recorded lectures, Acland Video Atlas, readings, guided engagement activities) and interactive online classroom sessions (e.g., TBL/PBL groups, retrieval practice through polling quizzing, “digital dissection” with screen sharing of digital apps)
- Utilization of engagement activities (e.g., Kahoot quizzes)
- Assessments through online testing platforms (e.g., ExamSoft)
- Augment lectures with Acland Video Atlas and engagement activities

Question #2

Which active learning methods will you use to engage students during **anatomy lecture** sessions?

Breakout room 7: Questions interpreted with narrative powerpoints asking students to reflect and then the facilitator will discuss the answers. Q & A and cases discussed on zoom, flipped material and discussion board. Discussion board also helps in peer teaching. Clinical case vignette at the end of the lecture. Interested to try kahoot, polleverywhere.

Potential discussion ideas: Will you use Zoom break-out rooms, polls, whiteboards?

Please share the discussion points offered in your breakout group

1. Kahoot!, Qualtrics, TBL, Padlet (collaborative note taking)
2. Use chat, polls, Q&A, case based, when doing recorded lectures be sure there is transcription and clear bright light on face to read lips clearly; Live lecturing imp to engage students - faculty lecture another faculty facilitate/manage chat and Q&A;
- 4- Please see responses to question # 1
5. TopHat for audience response, case-based learning, draw-it-to-know it (guiding through templates, especially as introducing more intricate anatomy); incorporation of clinical data

(radio) - not changing the info, just the platform - breakout rooms with Zoom, TAs will have places to meet with small groups, documentary, feedback provided through virtual format, designated person from IT can do 3D image capture (camera that can capture images in 3D that can be rotated without goggles), clinical videos - build anatomy based on these videos; using 2nd camera, share a model while delivering lecture virtually - ask questions as go through model

9. MS Teams = polling questions and get student feedback, student recorded videos working through case studies, checklist for returning to each module, using cadaveric images, using plastinated specimens for lab

Question #3 (discussed during summary)

How are you planning to deliver **anatomy laboratory** content in the fall?

Potential discussion ideas: Will you be dissecting? If so, how? If no dissection, how are you providing content to students?

Breakout room 7; Half of class and social distance with PPE. Recorded dissection videos (Online material), viewing and discussion sessions online and students will use shift work arrangement.

Please share the discussion points offered in your breakout group

1. Dissection videos (create own, label anatomy after creating video), undecided, BodyViz a possibility, hard to use cadaveric images, dissection videos complemented with online Zoom sessions/discussions
2. Will be holding labs, smaller groups and more of them; initially were planning to hold small groups in lab and provide dissection but administration just decided to do things online instead; will be using videos developed previously of dissection and cadaver images
3. Some groups have limits on how many students can be in the lab at one time, 1-2 students per tank, always 6-8 feet apart, rotate through in shifts (two-three total shifts), students must wear appropriate PPE at all times. One issue: much higher faculty contact hours bc of "shifts". One institution doing all virtual because of large class size- but still interactive delivery. One institution using prosected cadavers, rotating through in shifts. One institution recorded dissections and will virtually distribute videos to students with hope of meeting in person later in semester/year to revisit prosections. Some institutions are adding additional laboratory sessions in the fall to make up for time missed during this past spring semester.
- 4: Having multiple meetings with Inf.disease doc even with positive airflow in lab with 1 or 2 students/lab, previously recorded dissection videos being updated with faculty-guided prosection being made available on the learning platform along with virtual zoom labs for 75 students divided into sub-groups (90-minute sessions with case-guided learning toward the end)

In-person dissections of groups of no more than 4 students/table, Down-draft with students masked up & gloved

If cadavers have been pre-COVID & more than 6 months old, that should be OK. Embalming process should take care of any potential exposure.

Inf. Dis person coming in a week to evaluate the PPE, home-grown Virtual reality content being 5. Mayo Clinic = Live-stream dissection - faculty dissection (lack of skill & hesitation removed) - allows students to follow the entire dissection so they understand layers and relationships, students can observe techniques (some are more clinical); prosection with students rotating through in smaller groups; some dissection components - small teams of 2

9. Small groups in labs with online lectures, rotations of students with 2 students per lab table, decrease time of each student dissecting and sub in U of Michigan videos to decrease a bit the amount of time faculty are in lab, no dissection - prosection only with small groups of students, cadaver photos (may not be allowed at all institutions), create PPTs so that groups can work together on lab content using MS Teams (e.g., cardio -> image labeling and identification of vessels, case studies with clinicians in small groups), APR, Blue Link, Acland Videos

Breakout Group 8

- Virtual lab modules integrating pre-recorded self-directed modules (e.g., video, images, digital apps) with online interactive sessions (e.g., TBL/PBL activities, breakout groups, “digital dissection” with digital apps)
- Live lab (e.g., dissection/prosection, surface anatomy) dividing space and time in lab and keeping faculty and students physically distanced and in consistent small groups and/or pairs
- With live interactions, emphasis upon consistent utilization of PPE (e.g., masks), frequent handwashing, and frequent sanitization of lab equipment/space

Question #4

If you are planning **anatomy laboratory** dissection/prosection in the fall what social distancing parameters will you put in place?

Potential discussion ideas: Are you accommodating social distancing guidelines? If so, how many students are allowed in the lab? Are there fewer students per tank? Are tanks spread out in the lab? Rotations through the lab? Use of prosections? What PPE is required? Are students allowed to wear clothes from home underneath PPE? How do they get ready for lab sessions (e.g. dressing room size and maintaining social distancing parameters). Entrance/exit to/from lab? Hand washing? Any sanitizing required between sessions on the part of lab staff?

Please share the discussion points offered in your breakout group

2. Students have to provide own gloves; dept is supplying surgical masks and face shields, hand sanitizer/disinfectant, will re-use face shields; students not allowed in lab if don't agree to using PPEs; donated PPEs to local hospital and at same time placed order for new supplies that are slow to come in, will be requiring full PPEs; need to consider ventilation with increased; locker room scheduling issue

9. Space out cadavers and students, maintain 6 foot distancing, make PPE available to students, complete face coverings or face masks or face masks combined with face shields, one way direction in labs, change entry and exit if possible, change the way students circulate around the room

Question #5 (discussed during summary)

How will students be assessed? Will you administer an anatomy laboratory practical? If so, how?

Potential discussion ideas: Which visual learning aids will you use for the exam (cadavers, cadaver images, images from an e-learning application)? What are the logistics of the exam (social distancing parameters, administer multiple times, administer digital exam via learning management system, proctoring solutions)? Do you administer other assessments (e.g. reflections, radiology, ultrasound, cadaver presentations, case presentations, non-technical skills)? Are there assessments that you will cancel/forego this year on account of curricular changes? Will you use formative assessments to monitor student progress (e.g. polls, quizzes)

Breakout room 7: Lab practicals modified by having small groups of students, Examssoft, images of dissection, use images from model, online assessments using softwares..

Please share the discussion points offered in your breakout group

1. Unknown, photo/illustrations using Canvas/LMS
2. Cadaver photos with labels that were shared with students and used on exam, multiple choice question (recommend eliminating MC and instead fill in); provided resources of images said there would be similar but different images and would rotate it or show different perspective; exams un-proctored and open and grades improved so now proctor (1 faculty:5 students); put students into breakout rooms and faculty would proctor the breakout room via ExamSoft, students shared environment using camera;
3. One institution cross-sectional anatomy/xray questions formally on practical moved to written exams. Reducing total number of practical exam questions from 70-50 to allow for distance between question stations. One institution utilizes a cycling method to cycle a fewer number of students through the lab at one time while others are sequestered in a lecture hall. One is identical to former, but added PPE and greater distance. One

rearranging tanks into a circle so that students are only able to access one side of the cadaver and rotations are not confusing.

4. If lab is closed, photographic tests; if lab remains open, then regular cadaver-based exams; virtual-lab based exams & cadaveric -based images, Assess them on what they are actually learning!!!
5. Traditional practical, just smaller groups; video version - developed videos of cadaver tags, videoed cadavers as if you were taking the practical live, shifting camera as if person was there; cadaveric images for practicals (Rohens, McMinn & Abrahams, self-made images); virtual practical with 1st, 2nd & 3rd order questions
9. PowerPoint slides with anatomical images, naming multiple anatomical structures, 40 stations with 90 seconds for each stations,

Breakout Group 8

- Photo tagging of images of prosections or images from atlases with exam through online platform (e.g., ExamSoft, use of images, "Hot Spot")
- Lab practical in cadaver lab controlling space between students/faculty and time between groups of students/faculty in lab room
- Relying on state and city health departments, infectious disease specialists, etc. to guide decision making
- Do ventilation systems within cadaver labs offer lowered risk of COVID-19 transmission?

If time permits, feel free to answer questions #6 and #7

Question #6

How will you ensure learners are engaged, achieving objectives, maintaining connection with others, and thriving in this novel COVID learning environment? How will you create a positive learning environment in a distance learning classroom?

Potential discussion ideas: Will you use ice breakers or games for engaging and connecting learners and faculty? Will you use analytics from your learning management system to monitor if students are accessing and engaging with course content? Will you design activities and team-based assessments that engage learners outside of class time?

Please share the discussion points offered in your breakout group

3. One educator used added incentive of letting students shave his head if the students exceed former year's performance as a class.

Question #7

How will you continue to teach clinical skills such as physical exam?
Palpation? Ultrasound?

Please share the discussion points offered in your breakout group

Question #8

What major challenges are you currently facing?

- Funding challenges for some, not for others;
- Guidance from administration has been lacking
- Scheduling (have to be online after Thanksgiving, students will not return to campus)
- Multiple parallel curricula for immunocompromised students if in-class lab sessions are offered for everyone else.
- Security of donor material (password protect waiting rooms)
- Faculty burnout is a challenge due to increased student contact hours, developing new resources, and running multiple laboratory sessions to enable social distancing.
- Building relationships with students
- Administration changing how things will go/lack of decisions
- Locker room limitations - how will students change into and out of scrubs?

funding used to purchase anatomy resources

Please share the discussion points offered in your breakout group

3. Educator burnout bc of added involvement. Some students are not fond of virtual experience when tactile learning, 3D relationship appreciation is sacrificed. Not seeing students in person hinders student/teacher relationship and informal assessments of learning process/student attitudes.