GUEST EDITOR

Jeff Miller,
Senior Lecturer,
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Welcome to the new ECTL Pedagogical Post. This newsletter shares teaching tips and spotlights faculty and graduate teaching assistants doing great work, important campus collaborations and partnerships, and any other timely or interesting information.

This month our featured faculty members are Kimberly Frith from Civil & Architectural Engineering and Jessica Papke from the School of Pharmacy. Our featured graduate assistant is Nolan Carey from the Division of Kinesiology and Health. And we welcome our new Vice Provost for Online and Continuing Education, Dr. Matt Griswold. Also, check out the Teaching Tip on giving students ownership and the news about two RFPs (requests for proposals) that are happening—one to replace VidGrid (there are some great candidates!) and one to take another look at online proctoring solutions for distance courses. This and more can be found in this issue of the ECTL Pedagogical Post.

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WHAT'S INSIDE
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FACULTY SPOTLIGHT

My ECTL Toolbox

By: Kimberly Frith, Assistant Lecturer, Civil & Architectural Engineering

During my three years of teaching at the University of Wyoming, I've been fortunate to have fostered a wonderful relationship with the staff at the Ellbogen Center for Teaching and Learning (ECTL). The ECTL team is made up of experts with a passion for helping teachers improve their craft. The ECTL focuses on the mechanics of teaching (nuts & bolts) so that individual faculty can be freed up to focus on their technical expertise. In short, they help make sure that all the behind-the-scenes stuff works the way it should (whether it's digital teaching tools, or a rubric for a creative assignment, or a new approach to team projects) so we are free to explore our subjects openly with students and take intellectual risks in our classrooms.

Place-Based Learning

One of the first ECTL events I attended was a workshop on place-based learning. There were three guest speakers who shared activities they had incorporated in their own classes, including how to use a microscope attachment for cell phones to photograph snowflakes. This workshop inspired me to incorporate various place-based learning elements in my engineering classes. Whether they are touring the campus energy plant or sustainable buildings on campus, visiting the local water treatment plant, or having students film their own "DIY Field Trips" highlighting the mechanical equipment where they live, field trips are an integral part of most of my classes now. I also incorporate short video field trips into my live lectures to demonstrate concepts. For example, last summer I visited the Zion National Park Visitor Center, which uses no added energy for heating and cooling, and I filmed a video clip explaining the passive design to use in my "Fundamentals of Building Performance" class. Finally, I used place-based learning with my First-Year Seminar class to help integrate the new students into the UW campus by regularly holding classes in unique spaces around campus, such as Prexy's Pasture or the Berry Center outdoor classroom.

Digital Teaching & Learning

During the summer of 2020, we were faced with the rapid transition to online teaching. The ECTL's Digital Teaching & Learning course, combined with a one-on-

Prexy's Pasture, with the "University Family" in the background.
Wyoming Jackrabbit | July 2nd, 2010
CC BY-NC-SA 2.0

one consultation with Christi Boggs, helped me design fully online courses for the 2020-2021 academic year. While we're back in the classroom now, I still consider myself to be a WyoCourses "super user" and incorporate digital teaching and assessment methods in all my courses. Being able to use WyoCourses effectively helps me have a well-organized course, which students appreciate. It also helps save time when I need to gather documentation for our ABET accreditation team.

Peer Consultation & Observation

I have sought the help of ECTL staff more times than I can remember, but two recent ways include working with Meg Van Baalen-Wood and Jeff Miller to recover and improve a failed course design. As a new instructor, I was ambitious and eager to try something new, so I flipped one of my engineering courses. I followed all of the best practices from the books and online tutorials for flipping a class, and the students did excellent work, but overall, the course left a bad impression on the students and needed to be redesigned.

I met with Meg to review the student evaluations to find out what worked well (what we should keep) and what was not effective (what we should change). Meg's objective perspective was vital in helping me understand how even the best-laid plans can sometimes go sideways, and she gave me the support I needed to revise the course. When it came time to teach the course again in a traditional format, Jeff conducted a peer observation of my course. His feedback confirmed that the course was redesigned in an effective way, which gave me the peace of mind to follow through with it. It ended up

being a successful semester and a lot of fun for the students, too.

Great Teachers Retreat

Often the best way to learn from other faculty is to have casual conversations with each other in an informal setting. Since we're usually busy during the semester with teaching, research, and service, taking a few days in May to get off campus for the Ellbogen Great Teachers Retreat in Saratoga was a welcome reprieve and exactly what I needed to recharge my batteries after a few years of COVID teaching. At the retreat, the ECTL staff did an amazing job helping us all feel like "fast friends," so we were comfortable asking vulnerable questions. One of the main questions I had was how to incorporate off-campus field trips in a large class. After several conversations with others, I realized I had been overthinking, and I was allowed to just tell students to arrange their

2022 Participants Kim Frith and Maria Kuznetsova

own transportation. These small pieces of information are the kinds of things that are not explicitly laid out in new faculty training, but they save us so much grief when we learn that it's OK to take a certain course of action

because someone else has already done it successfully

In summary, my connection to the ECTL has helped me develop my teaching philosophy and given me the tools I need to be a successful instructor to around 200 engineering students each year. I recommend attending an upcoming ECTL event, joining one of their book clubs, or reaching out for a peer observation to get connected with the staff and start exploring everything that is available to you.

PARTNER PROFILE

One of the ECTL's core values is collaboration with various partners around the university and the state. The Partner Profiles column celebrates these partnerships.

Welcome to Matt Griswold:
New Vice Provost for Online & Continuing Education at UW

By: Jeff Miller, Senior Lecturer, ECTL

Please join the Ellbogen Center for Teaching & Learning (ECTL) as we welcome our new partner, Matt Griswold, who recently began his role as the Vice Provost for Online & Continuing Education at the University of Wyoming. We are so excited to have Matt join the university community. Matt comes to UW from Metro State, Denver, where for the last five years, he was the Associate Vice President for Online Learning. Under Matt's leadership, Metro State experienced substantial growth in the number

of degree programs offered online and in on-line student enrollment. More importantly, Matt facilitated the creation of institutional policies and processes related to the admin-istration and support of online programs—policies and processes that make growth and the development of quality courses and programs possible and sustainable.

Distance education at UW has been led by some extraordinary people, including Jim Schaeffer, Judy Powell, Maggi Murdock, Susan Frye, Alyson Hagy, Mark Lyford, James Ahern, and Ben Cook, all of whom nurtured a partnership with the ECTL that was crucial to strengthen distance education and provide continuity in support of all faculty, whether they taught on campus, via distance, or both.

The Outreach School and ECTL have always worked together to offer trainings, seminars, workshops, and technical and pedagogical support to UW instructors. They have pre-sented with one another at conferences and produced scholarly publications together. In 2009, the ECTL, Outreach, and UW Libraries organized and hosted the e-Volution confer-ence, which continued annually through 2016. This campus-based conference attracted attendees from around Wyoming, Colorado, Nebraska, and even

internationally. In 2017 ECTL and Outreach joined with educators from around the state to redirect the e-Volution conference resources and efforts into the annual, statewide Innovations in Learning conference. Further strengthening the ECTL/Outreach relationship, our ECTL colleague, Meg Van Baalen-Wood, was one of an esteemed group of Outreach School Faculty Fellows. In 2008, Outreach and ECTL began offering weekly drop-in support hours (now known as Faculty Learning Studio) for all UW instructors.

Join us for Faculty Learning Studio
Mondays and Thursdays
2:00pm - 4:00pm
Jan 9th through May 11th

One final example—the process that resulted in UW's purchase of Canvas began as a joint effort between Outreach, the ECTL, and IT, as were the year-long transition, campus-wide training, and ongoing support. This partnership is well established, and the ECTL has already begun working with our new Vice Provost.

Matt represents a new day in the University of Wyoming's substantial history of distance and online learning. As a land grant institution and the only institution in the state to offer bachelor's (until recently) and graduate degrees, UW has had to be innovative to fulfill its state-wide service and academic missions. Correspondence study was established at UW well over 100 years ago. In the 1960s and 1970s, correspondence study concurrently served thousands of students. UW has also offered opportunities to students around the state by flying (or otherwise transporting) professors to remote locations to teach in-person courses. In the 1980s, UW began offering audio teleconferencing courses, allowing
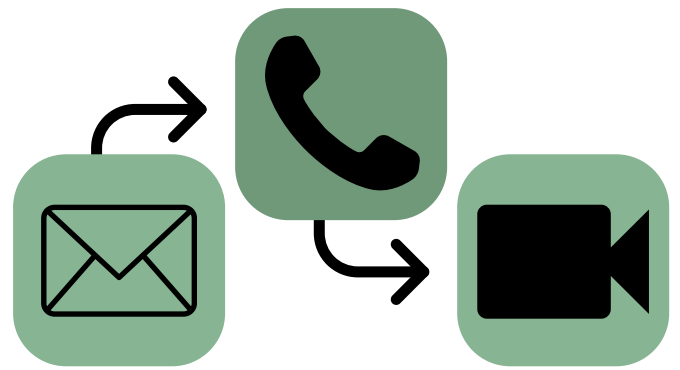
students across the state, and the country, to join "classrooms" via conference phone with accompanying lecture content on VHS tapes available at each site. In 1991, UW premiered a statewide video-conferencing network that allowed students to gather in designated rooms throughout the state to participate in classes taught in real-time by instructors on the UW campus. In 1997, UW contracted with a company called Real Education to begin offering fully online courses and programs. Within a few years the number of online offerings and students far surpassed all other distance delivery modes combined. In 2016, the statewide video network was replaced with web-conferencing, which became the lifeline of all formal education, globally, in 2020. In 2017, the Outreach School was dissolved due to substantial budget cuts. The school's instructional staff found a home at the ECTL, which, having been a valuable partner to distance education all the way, is now ready to be so again.

In the last few years UW, and indeed the entire world, has been through an unprecedented online teaching and learning upheaval. The ECTL was front and center in helping the university absorb the shock of that 2020 tidal wave. As we adapt to this new paradigm, we are very fortunate to be able to bring Matt into the fold and partner with him as he helps UW reestablish itself in the world of online and continuing education. Welcome to the University of Wyoming, Matt!

Give Students Ownership

By: Jeff Miller, Senior Lecturer, ECTL

The idea of grounding education in the experience and interests of learners is nothing new. John Dewey went into the topic in great detail in his book, *Experience and Education*, originally published in 1938. Giving students choices and agency is also a well-established and reliable teaching method. In *The Modern Practice of Adult Education,* Malcolm Knowles discussed his use of "learning contracts." Knowles presented each of his students with a contract in which they identified their own learning outcomes and their own strategies and resources for reaching those outcomes. Students also specified what evidence they would provide to prove they had successfully achieved their outcomes and what criteria would be used to judge their success.

Such detailed, individual learning contracts are only for the most intrepid faculty (and students), but simple "ownership" is not out of reach. It is a matter of students bringing their own experiences to their learning. It is their ability to make choices. It is giving students agency. And it can take many forms.

Some examples include:

- In groups or individually, have students teach a topic or a chapter. Make them responsible for visuals and answering questions.

- Assign students to present on a topic of their choice that is also related to the subject of the course.

- Create assignments that require students to incorporate real-life situations that are within their experience or otherwise of potential interest to them. In a physics class, for example, design a problem set around how/if the infamous "deflate-gate" might affect the outcome of a football game. In a chemistry class, have students look at the phenomenon of water coming out of the tap on fire and how that is related to fracking. In an English class, allow students to explicate a poem of their choosing, perhaps the lyrics of a favorite song, or in a higher-level class, apply class concepts to something the students are already engaged with.

Try Breakout EDU, an active learning tool!

Kit (in-person) – The ECTL has three Breakout EDU kits that are available for checkout and can be used to play hundreds of games. We recommend a minimum borrowing time of 3 weeks. To borrow a kit from the ECTL, please complete this **form**.

Online platform – There are an unlimited number of accounts available to UW instructors. To request a UW account, please complete this **form**.

Go here for more information: **Breakout EDU web page.**

- Create assignments based specifically on your students' experience, e.g., have them analyze cultural, budgetary, market, political, or other challenges in a job they have had or in the town they grew up in. Give them options.

- Allow students to choose their assignments. This can be done by having a few nonnegotiable assignments that everyone has to do but requiring additional points students can obtain through activities they choose from a list of options you provide.

- Include students in developing student learning outcomes (SLOs). Find out what they want to learn and/or expect to learn and create SLOs together based on that discussion.

- Allow students to help you develop course policies, e.g., attendance policies, electronic device policies, policies that guide respectful interaction, or how plagiarism will be defined in the syllabus.

- Charge students with writing exam questions for an entire exam or a portion of an exam. Require, for example, each student to submit three thoughtful questions for you to choose from.

- Allow students to set their own deadlines. Offer them suggested deadlines and set boundaries that make this feasible for you and them.

- Include students in creating a rubric for an assignment or in creating the assignment itself.

There are many ways to provide students with opportunities to apply course content to their interests and experiences and to give them a real stake in their learning. Allowing students to make choices that influence their own learning encourages active engagement in the process.

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LET'S TALK ABOUT SOTL

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The Scholarship of Teaching and Learning (SoTL) is a growing discipline focusing on inquiry into student learning and publicly sharing the findings. This multi-disciplinary research informs best practices in teaching and learning and can be an important factor in assessment of student learning. The Ellbogen Center for Teaching and Learning (ECTL) offers numerous opportunities every academic year to learn more about SoTL and to become part of the UW SoTL community.

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Student Perceptions of Video-based Flip Discussions During a Short-term Faculty-led Study-Abroad Program

By: Jessica Papke, Clinical Assistant Professor, School of Pharmacy

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Introduction

Online discussions in higher-education courses have multiple benefits, such as promoting critical thinking, developing relationships and connections among students, and allowing all students to participate (Arend 2009, Johnson 2008). These types of discussions also allow teachers to get real-time feedback on students' connections to the content. Courses that utilize discussion may use a few different formats: in-person, written-online, or video-online. During faculty-led study-abroad courses, written discussions may be cumbersome due to these classes' fast-paced nature, as these courses are typically shorter in duration. While in-person discussions are feasible in these settings, they take time away from other enriching activities abroad. Visiting a foreign country lends itself well to students providing visual representations of their discussion points. Video-based discussion boards also have an advantage over written discussions in that they allow learners to also work on their verbal presentation skills, and they have been shown to increase engagement for struggling students (Borup 2013). In a day and age when visual-based social media is a part of most learners' everyday lives, this SoTL study aims to measure student engagement and satisfaction with video-based discussion boards before, during, and after a 10-day freshman study-abroad trip to London, England.

Overview of the Project

This project aims to understand student perception of video-based discussions during a faculty-led study-abroad course and determine if video-based discussions are a feasible alternative to other types of discussions that occur during study-abroad programs. Student perceptions of these activities give insight into future students' buy-in. Buy-in is critical to increasing students' motivation to learn and grow within the content (Cavanagh 2016).

How the Study Was Conducted

The study was deemed IRB-exempt by the University of Wyoming IRB. Nine freshman students participated in the first-year seminar abroad program to London, England, centered around mental health and wellness. The trip lasted ten days and

was led by two University of Wyoming faculty members. During pre-program meetings, students were introduced to this assignment. The instructors created a group in the free app, Flip (previously Flipgrid), and invited the students to the group. Students were encouraged to download the app and join the group before the trip began. (For those unfamiliar with Flip, it is very similar to TikTok or Snapchat, both popular applications among the target students. Flip is also available as a web app for students who do not have smart devices.) Before the trip, three prompts were posted in the Flip group. The prompts were also included in the course syllabus. Students were required to post one original response to each prompt and at least two replies to two different classmates' posts. Original posts were set to a maximum of two minutes and thirty seconds, whereas reply length was up to the students' discretion. Learners were encouraged to create posts that added substance to the conversation. Original posts were required to be completed within three days of the activity, and all replies needed to be done within two weeks following the trip. Instructors were also able to join the conversations and post replies.

One month after the trip, the students were surveyed using Qualtrics. Students voluntarily answered a series of seventeen Likert scale and six open-ended questions, as well as basic demographic questions.

Select Findings

Eight out of the nine students who were a part of the trip completed the survey (n=8), and 100% of them were female. Of note, eight out of nine of the students completed all the assigned discussions on time. On average, original posts were one minute and 36 seconds long and students' replies were 50
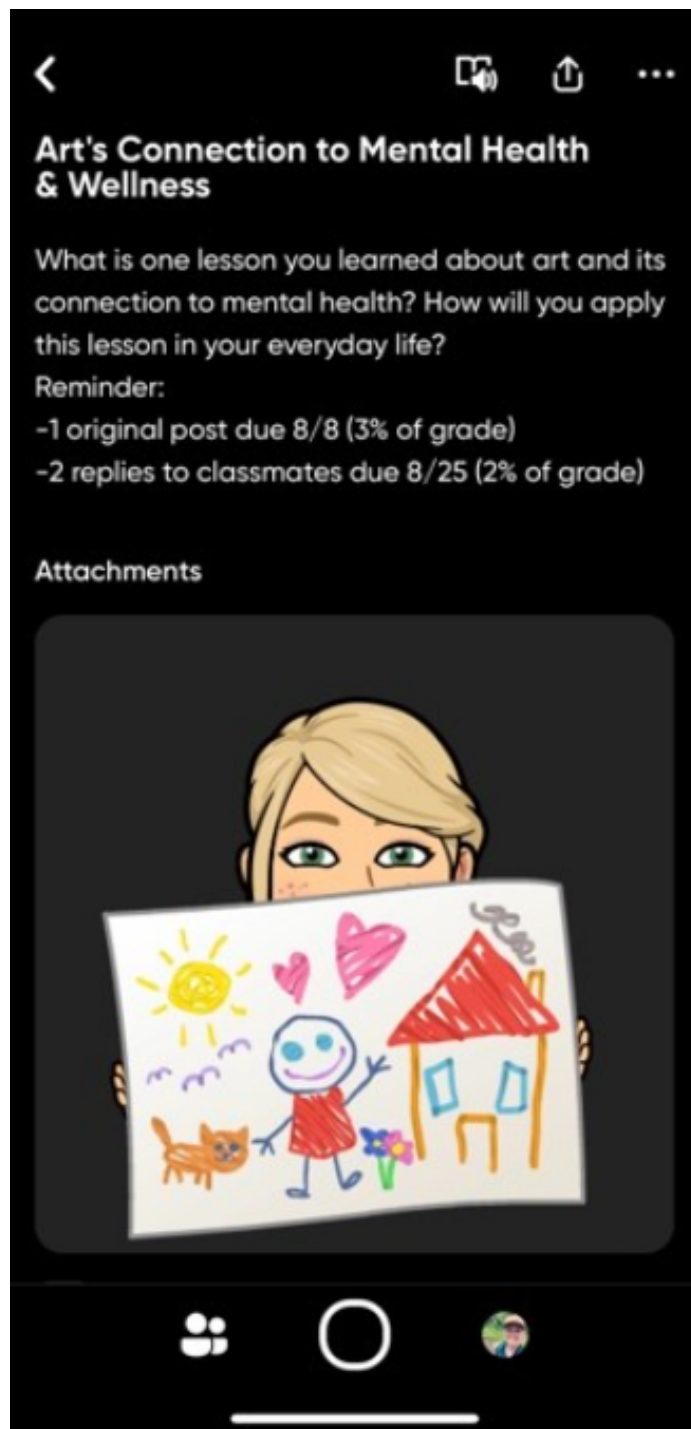

Figure 1. Example prompt on the Flip app: Students click the button in the bottom center to begin their reply. Instructors may also attach links or files to the prompt (for example required reading material).

seconds long. Eighty-eight percent of the students "strongly agreed" or "agreed" with the statement, "I liked using Flip for this course." In addition, 75% of the respondents believed that the video-based disc-ussions helped them get to know

their classmates better. Three-quarters of the participants also agreed that the Flip discussions enhanced their understanding of the topic. All the students agreed that Flip was easy to use. This ease of use may be attributed to the fact that this platform is very similar to social media apps that all the students in the class stated they use daily.

63% of students stated they would like their semester-long courses to use video-based discussions.

When asked what students liked about Flip, one student said, "it was easier to get a point across and it felt more personal, especially getting to know each other for the first time." Three of the responses stated that they liked not having to type out their responses to discussion posts. One thing the students disliked "was having to do so many responses because it was hard to make it through everyone's." Three of the responses mentioned that replying to each other's posts was difficult to figure out at first, but that they got the hang of it in the end.

In the future, we would recommend using these types of reflections, not only on short-term faculty-led study-abroad courses but in other discussion-based semester-long courses as well. In a day and age that revolves around technology, these types of discussions are straightforward for students to use, given their familiarity with technology. The video-based discussions also allowed students to work on their oral communication and presentation skills. One recommendation we would have for the future is revisiting the number of replies required and their utility.

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RFPS UNDERWAY

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Video Management and Online Proctoring
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By: Jeff Miller
Senior Lecturer
ECTL

The university has embarked on a competitive request for proposal (RFP) process for two technologies that have been in use since prior to 2020. One RFP is for a video content management solution. Our current video management solution, VidGrid, has been available to University of Wyoming instructors to produce and manage video content for courses, trainings, assignments, etc. since

2017. UW initially acquired VidGrid on a limited basis but went all-in in March 2020 due to the pandemic. VidGrid did not respond to our call for proposals, so there will be a transition, but we intend to make it as smooth as possible. One criterion for this RFP is the migration of content from the previous solution to the new one.

The second RFP is for online proctoring solutions. Due in large part to the dissolution of the Outreach School, which facilitated in-person proctoring for all distance courses, UW signed a contract with Honorlock in 2019. Our contract is up this year, and a competitive RFP process is underway.

By the time this newsletter comes out, both RFP evaluation committees will be reviewing vendor proposals. Demos from short-listed vendors will likely occur in late March and/or early April. Users outside of the RFP evaluation committee will have an opportunity to attend the demos—for both the video content management solution and the online proctoring solution. Those interested in participating will have an opportunity to register and to provide feedback.

Please note: the RFP process is confidential and highly structured. It is important that no one has conversations with interested vendors regarding the RFP outside of UW Procurement Services, and even then, those communications must follow a designated protocol. The goal is to have a fair and unbiased look at possible solutions and to identify the solution that provides the best value and best meets the needs of UW.

The campus will be kept up to date on the status and next steps. Please stay tuned for updates, and if you have questions feel free to contact me: jmiller@uwyo.edu

GTA CORNER

While fulfilling the roles of teacher and student, Graduate Teaching Assistants (GTA) are a critical part of university culture. Through this unique lens, UW GTAs share their teaching and learning experiences in higher education.

Using a Jigsaw Method to Increase Active Learning

By: Nolan Carey, Graduate Research Assistant, *Division of Kinesiology & Health*

Shulman (1986) identified seven different knowledge bases to teaching. One knowledge base that has received lots of attention over the years has been pedagogical content knowledge. Pedagogical content knowledge is an understanding of the content being taught in conjunction with the pedagogical skills needed to best convey that information (Shulman, 1987). It is what separates the teacher from the content specialist. Many graduate assistants with backgrounds outside of education might have adequate content knowledge in the course they are teaching but lack the pedagogical skills required to convey the material in an engaging way. Therefore, the purpose of this essay is to outline Kagan's (1989) jigsaw method and my experience using it here at the University of Wyoming teaching a lab section of human anatomy.

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One of my main teaching responsibilities last year was to instruct a lab section of human anatomy housed within the Division of Kinesiology & Health. For those unfamiliar with the course, much of the general setup involves students working hands-on with various models that represent structures found in the human body. When I first started teaching the course, I adopted the same setup that was used by the other lab instructors. This setup involved placing students into small groups at a learning station where either an undergraduate teaching assistant or I would be situated to teach a specific section of the course material for that week. Students would rotate after the material was covered at their station, repeating the process until all stations were attended to. While this setup was adequate for some students, it became clear that this approach did not align with the preference of many students who required a more 'hands-on' or active learning experience to fully retain the information. In many ways, these students were left to figure out much of the content for themselves outside of lab to compensate for the methodology that misaligned with their learning styles/ preferences. It became evident to me that different structures were needed to facilitate student learning and engagement. This was when I decided to deliver the course using Kagan's (1989) jigsaw method. The jigsaw method is a cooperative learning structure that increases individual accountability and group interdependence. It entails placing students into small hetero-geneous groups where each student learns a different section of the material and is responsible for teaching that section to the rest of their group. For example, when I was teaching anatomy, students were respon-sible for learning the muscles of the head, torso, arms, and legs during the week of the muscular system. To initiate the jigsaw method, I placed students into initial (i.e., home teams) of four, where each student obtained a number 1-4. Once each student had their number, they would then join the members of the other groups with the same number to form expert groups. In this case, each expert group learned the muscles associated with their section in-depth (e.g., 1s = head muscles, 2s = torso muscles, 3s = arm muscles, 4s =

leg muscles). Eventually, students returned to their initial home teams where they taught their section to the rest of their group members, putting all the pieces of the puzzle together so that all sections of the muscular system were covered by the end of the lab.
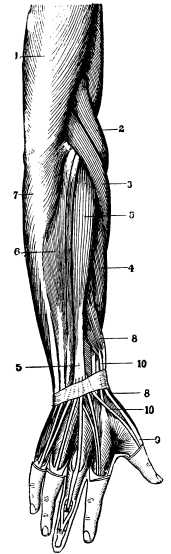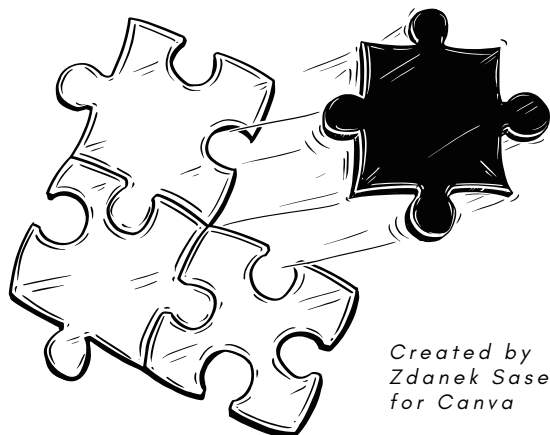
For me the juxtaposition between student learning and engagement in the course material between the first few weeks using regular stations and when I adopted the jigsaw method for the latter portion of the semester was stark. Students using the jigsaw method were much more engaged in the material and left the class with a better understanding of the anatomical structures covered in class. It was also very exciting to watch students take on a more active role in their learning and the learning of their classmates via peer teaching. What's

more, this structure can be used regardless of the profession or field, making it perhaps a suitable instructional strategy that you can implement as well.

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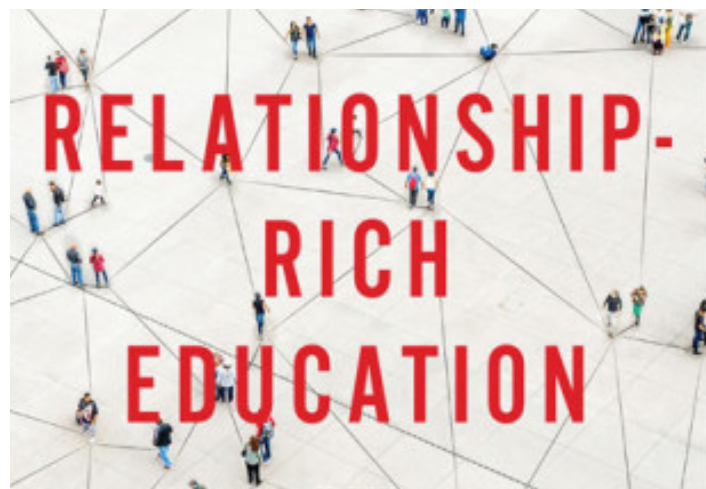
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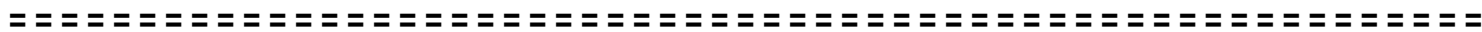
ECTL SPRING BOOK DISCUSSION - AUTHORS COMING TO UW IN FALL 2023

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Relationship-Rich Education: How Human Connections Drive Success in College
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What single factor makes for an excellent college education? As it turns out, it's pretty simple: human relationships. Decades of research demonstrate the transformative potential and the lasting legacies of a relationship-rich college experience. Critics suggest that to build connections with peers, faculty, staff, and other mentors is expensive and only an option at elite institutions where instructors have the luxury of time with students. But in this revelatory book brimming with the voices of students, faculty, and staff from across the country, Peter Felten and Leo M. Lambert argue that relationship-rich environments can and should exist for all students at all types of institutions (Johns Hopkins University Press).

Sign up for a book group! A few spots remain in several of the groups the ECTL is hosting this spring to discuss this book. Participants who attend all three sessions of their group will be invited to a special presentation with the authors in the fall. For more information and to register for a book group, **please go here**.

Reference:
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