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Lecture-only style teaching where a teacher delivers content and students are tested on the retained information is the predominant approach in higher education. Alternatively, active learning is an instructional method in which students become engaged participants in the classroom through the use of in-class written exercises, games, problem sets, audience-response systems, debates, class discussions and more. Active learning provides the following benefits to the student: improved student engagement, class attendance, course pass rate, content retention, enhanced cognition, information transfer, professional skill development and attitudes toward the discipline. It has also shown to preferentially benefit female and first generation college students. Despite the known benefits, the transition to using active learning strategies over a lecture-only style teaching has been slow. This case study used a qualitative approach to determine one kinesiology department's faculty perceptions of active learning and the barriers and facilitators that exist for them. Constant comparative analysis of campus documents, questionnaire responses and a focus group transcript were conducted. The project revealed that the faculty value student engagement, want to use more active learning, and learn to teach through observation. Barriers to active learning in the department included time needed to change teaching methods, student preparation for active learning, course content may require lecture and finally, financial resources. Based on the findings, the department will implement a *Sit One, Share One Colleague Observation* model, create a *Kinesiology Departmental Mentorship Program* for new faculty and write a Syllabus Statement for students regarding the value of active learning.

ACTIVE LEARNING IN THE KINESIOLOGY CLASSROOM:

FACULTY PERCEPTIONS AND NEEDS

by

Anna S. Carter

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Approved by

Dr. Pam K. Brown
Committee Chair

DEDICATION

This dissertation is dedicated to any student who sat in a classroom and struggled to learn, who grew up to believe they weren't smart or couldn't learn, whose grades never reflected what they were capable of, who became complacent instead of curious and to the student of the future, you were my driving force.

To Dan, Ashton, Cameron, Bristol and David – thank you for your love, patience and support. I'm back!

To my parents, brother and sister – thank you for always having my back and for stepping in when I needed it.

To my friends and clients – thank you for listening, asking questions and showing me grace during this time.

APPROVAL PAGE

This dissertation written by Anna S. Carter has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Chair

Dr. Pam K. Brown

Committee Member

Dr. Laura Pipe

Committee Member

Dr. Meaghan Howard

March 22, 2023

Date of Acceptance by Committee

February 27, 2023

Date of Final Oral Examination

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CHAPTER I: PROJECT OVERVIEW

While the evidence to support active learning in the classroom is overwhelming, the transition by faculty toward using these strategies is slow (Bodary & Gross, 2018; Deslauriers, et al., 2019; Knudsen & Meaney, 2018; Nelson & Crow, 2014; Patrick, et al., 2016). Teacher-centered learning in higher education, where a teacher stands at the front of the room delivering information and testing students on the retained content, does not best prepare students for the modern workforce, yet this has been the approach for over 100 years (Harris & Welch Bacon, 2019). In contrast, the active, student-centered approach benefits the learner in many ways; improved student engagement, class attendance, improved course pass rate, decreased dropout rate, content retention, enhanced cognition, information transfer, professional skill development, attitudes toward the discipline and benefits to female and first generation college students (Deslauriers et al., 2019; Doyle, 2019; Freeman et al., 2014; Knudson & Meaney, 2018; VanAmburgh et al., 2007). Although there is research to support active learning, at present, there is limited research specific to the kinesiology programs. Therefore, this project provided the data needed to explain barriers and facilitators that exist in a kinesiology department. The findings help create facilitative efforts so that more active learning is possible in the kinesiology classroom. This project contributes to the development of best practices for teaching in the kinesiology department.

Background Literature

Drawing students away from passive, lecture-only based learning and allowing them to have an active role in their education bridges the gap between knowledge learned in the classroom and the practical application of that knowledge (DeLuca & Fornatora, 2020). This is important because students in a kinesiology discipline are seeking jobs such as coaching, allied

health, physical therapy, athletic training, health promotion and others, all of which require practical application skills, such as collaboration, problem solving, critical thinking and communication. Examples of active learning strategies include case studies, group collaboration projects, problem solving, think-pair-share, peer teaching and class discussion among others. While the evidence is overwhelmingly in support of active learning in the kinesiology classroom, the transition toward using these strategies is slow (Bodary & Gross, 2018; Deslauriers, et al., 2019; Knudsen & Meaney, 2018; Nelson & Crow, 2014; Patrick, et al., 2016). Evidence suggests that faculty perceptions such as time, technology and financial resources contribute to the slow movement toward using active learning strategies. It is important to understand why faculty are not using active learning more in the kinesiology classroom so that future facilitative efforts can minimize barriers that exist.

Active learning is an instructional method in which students become engaged participants in the classroom through the use of in-class written exercises, games, problem sets, audience-response systems, debates, class discussions and more (Miller & Metz, 2014; Petress, 2008). These activities are normally collaborative in nature, requiring students to work together to achieve a common goal, making the learning process more integrative. In the kinesiology classroom, applied, active learning combines academic content and assignments with skill competencies, responsibilities and scenarios. These scenarios mimic those that will occur in the workplace (DeLuca & Fornatora, 2020). Active learning shifts the goal in the kinesiology classroom from knowing content to applying concepts. Students shift from passive to active learners and the responsibility of learning shifts from the instructor to the student (Chickering & Gamson, 1987; Simonson, 2014).

Active learning is associated with a constructivist theory of learning where the student is actively challenging and critiquing concepts developed through their own experiences and the experiences of others under the guidance of a teacher who encourages necessary cognitive conflict (Bada, 2015; Piaget, 1973). This occurs when a student is presented with new information and they weigh it against what they already know or believe. Students use active techniques to create more knowledge and then reflect on and talk about what they are doing and how their understanding is changing (Bada, 2015; Ford, 2010). Use of active techniques not only benefits students by allowing them to practice skills and ask questions, but it allows instructors to assess student understanding and comprehension on a real time basis. This allows kinesiology students to improve their own thinking and classroom performance while connecting the information to the real world (Van Amburgh et al., 2007). This is important as kinesiology students are required to apply what they have learned in the classroom in their dynamic workplaces.

Research in the field of kinesiology and supporting disciplines demonstrates that the active, student-centered approach benefits the kinesiology student in many ways; improved student engagement, class attendance, improved course pass rate, decreased dropout rate, content retention, enhanced cognition, information transfer, professional skill development, attitudes toward the discipline and benefits to female and first generation college students (Deslauriers et al., 2019; Doyle, 2019; Freeman et al., 2014; Knudson & Meaney, 2018; VanAmburgh et al., 2007). Research in the field explains that through active learning, students absorb more information, follow up with instructors more often and are more engaged than when sitting in a lecture-only environment (Deslauriers et al., 2019; Doyle, 2019; Freeman et al., 2014; Knudson & Meaney, 2018; VanAmburgh et al., 2007). While active learning is beneficial to all students,

active learning preferentially benefits female students and first generation students (Goodman et al., 2018). It is proposed that underrepresented students respond to active learning because they feel they are a part of a team, thus contributing more to class discussions (Stains et al., 2018). Structured, active learning environments may reduce the achievement gap while raising the performance of all students without requiring additional funding. Again, the evidence to support active learning continues to increase, but the movement to use active learning more has been slow.

Studies show that 65-80% of university instructors engage in teacher-centered, lecture-only based learning (Nelson & Crow, 2014). Eighty-eight percent of faculty in a kinesiology related discipline were aware of the research-based, best practice of utilizing active learning; however, only 49% of them were using one or more strategies in their classrooms (Patrick et al., 2016). The opinion is not that lecture is all bad, but rather that incorporating more active learning will benefit students in kinesiology programs. Moving forward it is important to understand why kinesiology faculty are not adopting the active learning methods while the evidence supports the use so strongly.

The occupational socialization theory explains that during their education, educators transition through three socialization phases: acculturation, professional socialization and organizational socialization (Lawson, 1988; Lortie, 1975). The theory supports that if educators are not exposed to a pedagogical approach in the first two phases, they are unlikely to adopt it. Further, Pennington (2021), suggests that there is potentially a fourth phase, the secondary professional socialization phase, in doctoral candidates as they pursue a terminal degree to teach in higher education. Mentorship of the doctoral candidates plays a major role in developing candidates for teaching in higher education. Pennington (2021) indicates that many

doctoral programs prepare candidates for research roles and less in teaching though most candidates go on to teach in non-research institutions. The framework provided by this theory explains that faculty continue to use lecture-only methods because they teach how they were taught. Despite not all lecture being bad, finding ways to use more active learning is important for overcoming the gap between knowing active learning is good and actually doing it.

The inconsistency between what kinesiology instructors know and believe to be best practice and what they are actually doing in the classroom demonstrates an opportunity to assist faculty in developing their teaching methods (Knudson and Meaney, 2018). Some of the explanations for the slow transition to using active learning are the perceptions kinesiology and related content faculty have about changing their current techniques (Clinton & Kelly, 2017; Knudson and Meaney, 2018; Miller & Metz, 2014; Patrick et al., 2016). Negative faculty perceptions of active learning implementation can impede their adoption. Some of the negative perceptions include lack of time, little administrative support, poor teaching evaluations from students and frustration if students are not engaged in the process (Clinton & Kelly, 2017; Deslauriers et al., 2019, Michael, 2007; Miller & Metz, 2014; Patrick et al., 2016). Research in higher education has demonstrated that regardless of the barriers, faculty are able to overcome the barriers in practice by acknowledging the perceptions and addressing them in facilitative efforts that can increase the use of active learning in the classroom (Michael, 2007).

Rationale

There is limited research specific to kinesiology departments and active learning practices. The existing kinesiology related research and research in higher education indicate that perception barriers prevent the adoption of a new pedagogical practice, active learning included (Clinton & Kelly, 2017; Clinton & Kelly, 2020; Deslauriers et al., 2019, Michael, 2007; Miller &

Metz, 2014; Patrick et al., 2016). Examining these perceptions is necessary so that they can be addressed. Then, facilitative efforts can be implemented and active learning strategies can be incorporated more in the kinesiology courses. The outcomes created from this project will address the barriers that the kinesiology faculty face in their adoption of active learning.

Purpose and Aims

The purpose of this case study was to determine how a department's kinesiology faculty are using active learning strategies, and to gather information about the faculty perceptions regarding the pedagogy. The goal is that future efforts can be implemented to increase active learning in the kinesiology classrooms.

Aim 1: Identify kinesiology department faculty's current use and perceptions of active learning.

Aim 2: Determine what the kinesiology faculty need to facilitate the use of active learning and overcome any barriers that exist.

Methods

A case analysis approach examined the current pedagogical practices in the kinesiology department at a private, liberal arts college in North Carolina. Document analysis, a questionnaire and a focus group were used to collect data in this study. All faculty teaching a course in the department were invited to participate in a questionnaire and a follow up focus group to determine their use of and views about active learning in the department. Analysis was conducted on questionnaire responses, the focus group transcript and document review and observation.

Researcher Positionality

Positionality is an integral part of the research process as is the researcher's awareness of the stasis of their own and others positionality (Holmes, 2020). As the researcher in this project, I am closely tied to the content of the project, and I recognize my values and beliefs are inseparable from active learning, its use and importance. In this statement I address my positionality by locating myself in three areas of relationship: to the subject under investigation, to the research participants, and to the research context and process (Holmes, 2020).

The subject of this research was active learning. As an assistant professor in higher education I am a proponent of active learning and its benefits to students. Due to personal experience and use of active learning in my own classes, I believe it is important to address my own views and assumptions about the benefits of active learning. I am inclined to recognize benefits and perhaps minimize limitations. The purpose of the study was to further investigate the use of and perceptions about active learning in the kinesiology department to which I belong.

The participants in the study are colleagues in the kinesiology department and documents used to guide policies and procedures are for my institution. I am the department chair thus am an influential insider in the project and this provides some advantages and challenges. The advantages include: easier access to documents and people in the environment being studied, the ability to ask more insightful questions, the ability to produce a more authentic and rich description of the culture, the disorientation of cultural acclimation is removed and the researcher understands the language better as an insider (Holmes, 2020). Challenges include: inherent bias, too much familiarity with the culture to be objective, participants may not express views or information assuming that as an insider I already know it, sensitive information may not be

revealed for personal privacy reasons and finally, an insider may not ask questions that would be less obvious but just as important as an outsider (Holmes, 2020).

I recognized as the department chair there exists the potential for a power dynamic between myself and the participants [faculty in the department]. In order to mitigate this power differential, several measures were taken to balance out this dynamic. Due to concerns that participants may feel pressure to participate because of my position as the department chair, outside researchers assisted in the data collection process and provided continuous objectivity in the analysis of the data. I also made continuous efforts at reflexivity and journaled throughout the process (Appendix B).

A positive aspect in my position as the primary researcher and department chair were my ability to potentially affect change based on the findings. Based on the findings, I will be able to advocate on behalf of my department and the college for change that would increase faculty ability to use active learning strategies. Based on the findings, I am positioned to advocate for change that could affect all departments on campus, including my own.

Outside Researchers

Outside researchers conducted elements of the data collection and analysis to provide objectivity, participant confidentiality and trustworthiness in the data and process. The Questionnaire Distributor, who is a member of my cohort and a faculty member on another campus, sent the questionnaire to participants via email explaining who she was and why they were hearing from her. She expressed our efforts to maintain confidentiality through this process. Another individual conducted the focus group (Focus Group Moderator). This was an effort to mitigate any power differential during the research as the primary researcher is also the department chair/supervisor to participants. This person has experience in conducting focus

groups in the kinesiology field for doctoral research. A summary of the focus group findings was sent to participants by the focus group moderator, and they were able to respond to this report. These efforts were taken to minimize any pressure participants felt to participate or to give particular responses and as an option to verify their responses. In a final effort at transparency and trustworthiness, a second person assisted in coding the data initially (Coder 2). Coder 2 and the primary researcher coded the documents and the questionnaire responses separately and met on two occasions to compare coding of the data. These meetings increased trustworthiness of the data and the process.

Defining the Case

This project was an exploratory single case study. The kinesiology department at a small, private liberal arts college in North Carolina served as the setting of this exploration. The size and setting of the institution are classified as four-year, very small, highly residential. The college campus demographics are 43% women and 57% men, 53% of the campus population are first generation college students and the population is made up of 49.1% minority students (College Factual, 2022). The kinesiology department is recognized as one of the largest departments on campus serving 135 undergraduate students. The department offers majors in Health Sciences, Health and Physical Education Teacher Prep and Exercise Studies. There are four full-time faculty in the department and two adjunct faculty. On average, the teaching experience of the participants is 14 years (range 4 to 42 years). Participants teach an average of seven courses per calendar year (range 3 to 10 courses per year). Faculty are not required to conduct research and are encouraged to continue participation in outside professional activities and community service. Faculty are evaluated on teaching and service to the college and community.

Institutional Review Board (IRB) approval from UNC Greensboro and the subject college were obtained prior to the recruitment of participants. Participants included full-time faculty and adjuncts in the kinesiology department at the participating college in the Fall 2022 semester. Full-time and adjunct faculty teaching courses in the kinesiology majors received the IRB project summary worksheet and an invitation to participate in the questionnaire and later, the focus group. All recruited participants received a gift card to Amazon for $50. Because the researcher was not allowed to know who participated in the study, all participants who were recruited received the gift. The participant recruitment letter can be found in Appendix A.

Document Analysis

To understand how the kinesiology department and college policies impact teaching practices and campus teaching culture, document analysis was conducted. Documents provided data on the context within which research participants operate, providing background information and historical insight (Bowen, 2009). Bowen (2009) also explains that document analysis can suggest questions that need to be asked in the research process, provide a means of tracking change and development and can help to corroborate or refute evidence from other sources. Document analysis served all of these roles in this project. For the purpose of this case study, the following documents were identified as sources of information: Strategic Plan of the College, Promotion and Tenure Guidelines and Student Course Evaluation forms. A document information spreadsheet was created to organize various components the researcher was looking for in each document and also served as a journaling effort by the researcher to be reflexive throughout the process. This chart is located in Appendix C. The Student Course Evaluation form was only two years old, and the Strategic Plan of the College was adopted three months prior to the analysis of the document. The Promotion and Tenure Guidelines were accessible in

the Faculty Handbook, however, the Strategic Plan and the Student Course Evaluation form were not readily accessible to faculty. Despite their availability to faculty, these documents were used because collectively they provide information about policy content, expectations and campus culture. They were used to understand how policy might create a preventive or facilitative environment for active learning.

Questionnaire

Kinesiology faculty were invited via email to participate in an online questionnaire, developed and delivered through Qualtrics. The invitation was sent by the Questionnaire Distributor so that there was no unintended bias or pressure from the primary researcher. She also sent a final follow up message 10 days after initial distribution to explain that data collection would be ending and if they had not participated and wanted to, they had 4 more days to do so. There are six faculty and adjuncts in the department including the primary investigator, so five were invited to participate. Five of the five chose to participate in the questionnaire. The questionnaire included general questions about years teaching, teaching position/tenure and course load, as well as open ended questions regarding perception. The purpose of the questionnaire was to collect information about how they perceive active learning, ways they are currently using the technique and any barriers or facilitators they can point to in the classroom, in the department or on campus that are of important note moving forward. The definition of active learning used in this research was provided to participants in the questionnaire. A copy of the questionnaire can be found in Appendix C. The open ended question responses were compiled in a report from the Qualtrics program.

Focus Group

All kinesiology faculty were invited to participate in a focus group following the questionnaire data collection. Three of the five potential participants chose to participate. Demographics of the focus group participants are not available as participation remained anonymous to the primary investigator. Probing questions were developed from the analysis of the questionnaire data so that the focus group questions could provide clarification. Guidelines by Kreuger & Casey (2014) were used to design the questions and format of the focus group. Because the primary researcher is the department chair, a Focus Group Moderator with experience in conducting focus groups recruited participants, scheduled the focus group and hosted the meeting. This person was not connected to the college or department. Questions in the focus group asked faculty to describe active learning, how they use it in their classrooms and what barriers or facilitators they could identify. The definition of active learning used in this research was provided to participants by the Moderator and is stated in the focus group guide. The focus group guide can be found in Appendix D. The focus group was recorded on Zoom and the Focus Group Moderator de-identified the transcript prior to releasing it to the primary researcher. Participants were reminded that open and honest communication is welcome and that their responses will be de-identified. All efforts were made to reduce the risk of unanticipated harm, protect the participant's information, inform participants about the nature of the study and reduce their risk of exploitation.

Data Analysis

The document analysis was completed first and continuously reviewed as each other data set was coded. In the coding process each document received a first pass read through followed by a second read where phrases and quotes were highlighted (Frey, 2018). The aims of the

research study were printed and kept visible so that the researcher could be reflexive about what to look for in the data. The first and then second document were coded in this way, and then a review of the first document was repeated so that words, phrases and quotes were constantly compared. Last, the third document was coded with the repetitive, circle back process. The document analysis revealed themes and subthemes that were noted in the margins and a code book was started. A meeting with Coder 2 was held after both researchers had reviewed the document data. The two researchers shared themes, words and phrases that emerged. This meeting helped to insure trustworthiness of the coding (DiCicco-Bloom & Crabtree, 2006; Richards and Hemphill, 2018). There was consistency and agreement between coders. Next, the questionnaire data was read, re-read and coded (Bowen, 2009; Patton, 2014). The themes that emerged were added to the list of themes from the document analysis. The primary researcher met with Coder 2 again and agreement was met regarding the themes and subthemes from the data. Finally, the focus group transcript analysis was completed and themes were combined in the code book. The constant comparative process provided saturation where no new themes or sub themes emerge, signaling that data collection is complete (Dicicco-Bloom & Crabtree, 2006). As the code book was modified, a new version was created so that changes could be tracked over time. A fourth and final code book was created which includes themes, subthemes, definitions of subthemes, and quotations from the dataset (Richards and Hemphill, 2018). After completion of the codebook, a thematic structure was developed to aid in describing the participants' perspectives. See Figure 1 in Appendix E. A summary chart of the themes, sub themes, definitions and sources of data examples can be found in Appendix F.

Results

In ranking the frequency that participants use the methods, the top five most used methods were 1) group or collaborative learning, 2) interactive lecture, 3) lecture (didactic), 4) videos in class and 5) problem solving. The full list can be found in Appendix G Table 1. Participants were asked to rank the methods by order of effectiveness and faculty ranked them as follows: 1) group or collaborative learning, 2) problem solving, 3) interactive lecture, 4) flipped Classroom and 5) games or activities. A full list can be found in Appendix G Table 1. Finally, participants indicate that on average they used active learning strategies 63% of the class time and didactic, lecture-only methods 28% of the class time.

The analysis of the documents, questionnaire responses and the focus group transcript resulted in the development of a codebook. The themes, subthemes and definitions appear in a Table below (Chart 1). A full chart including examples of each category are outlined in Appendix F.

Table 1. Themes, Subthemes and Definitions

Theme	Subtheme	Definition
Perceptions	Philosophy/Beliefs	The philosophy and beliefs that shape the campus culture and affect teaching practice.
	Pedagogy (learning and teaching)	Faculty and campus perceptions of pedagogy - teaching and learning.
	Active learning	Perceptions of the meaning, purpose, practice and characteristics of active learning.
	Professional Evaluation and Development	Faculty and campus perceptions of professional evaluation and opportunity for professional development as they connect to teaching practice.
Practice	Support/Resources	Campus support to create a positive, inclusive and successful learning environment.
	Engaged/Creative	The practice of creating learning activities that involve student participation.

	Activity	Various teaching practices used to incorporate active learning.
	Move/Do	The physical movement associated with some active learning techniques.
Barriers	Technology	Ways that technology impedes the use of active learning.
	Students	The manner in which students' knowledge and perceptions impede the use of active learning.
	Resources	Financial and infrastructure that hinder the use of active learning.
	Content	The course material can control how much active learning is used in the classroom.
	Faculty	Perceptions of faculty about new pedagogical approaches can obstruct the incorporation of active learning in the classroom.
	Time	The dedication of time by faculty can hinder the use of active learning in the classroom.
Facilitators	Support	The campus culture and beliefs eases the incorporation of active learning.
	Student engagement	The degree to which students feel involved in the process encourages faculty to continue to pursue active learning strategies.
	Resources	Financial, human and technology capital that support the use of active learning in the classroom.

Perceptions

The first aim of the research was to identify the kinesiology department faculty perceptions of active learning. The theme Perceptions had three important subthemes: Pedagogy, Active Learning and Professional Evaluation and Development.

Pedagogy

The questionnaire and focus group responses revealed faculty perceptions of teaching and learning and these perceptions were supported by document analysis of the strategic plan of the College. Faculty and adjuncts bring varying levels of experience and training to the classroom. Pedagogy emerged as a theme from a teaching and learning perspective. The strategic plan of the College supports faculty innovation in pedagogy and learning experience:

> (The) College will develop and promote student-centered distinctive academic programs that create innovative experiences and opportunities for students, which embrace effective and innovative pedagogy and strategies to enhance learning and student success.

The faculty discussed how they learned to teach, "through observation, trial and error, asking questions and imitating styles I preferred as a student, pedagogy courses and observing other qualified instructors," by "observing veteran instructors. I learned by trial and error. I learned from self-reflection," and one faculty member offered, "I am still learning to teach." A final thought indicated again that the teaching and learning process is ongoing and cyclical, "Learning is a continual process and educators must continue to learn and challenge themselves just as we expect our students to challenge themselves."

Participants also shared the importance of students' buy-in in the learning process, including students have to understand "this is why we're doing this. This is why we're learning, and then it also makes it, you know, they can apply it in in real world settings as opposed to just 'Hey, we're gonna learn this and and forget about it.'" Another shared, "I think if it matters to them and they can see where they're going to actually use the things we're teaching them it makes it more important for them to learn it."

Active Learning

Through this project, faculty were able to establish and explain their understanding of active learning. Phrases that were used to define active learning included, "presenting them with a problem and they're creating the solution," "experience learning opportunities through doing," "students are not sitting and listening to lecture," "strategies that encompass more than the traditional lecture style," "do the work" and "create vision."

Questionnaire and focus group responses demonstrated that faculty feel engagement is a main component of active learning, “engagement and student involvement,” “students are actively engaged in the lesson,” “Can we engage the students? What is kind of the mission of active learning and for me the underlying current is engagement. One faculty summarized the collective thought on engagement, “I think all of us are about engagement. How can we get student engagement? How can we get student participation to increase? And for me that's kind of the take home for me from this.”

Professional Evaluation and Development

Faculty responses and campus documents outlined the importance of professional evaluation and development at the school and in the department. The College places an emphasis on teaching innovation and practice. As a small, private liberal arts campus “the primary, although not exclusive, criteria addressed in regular evaluations are teaching effectiveness, continued professional growth, commitment to the mission of the College, and willingness to work with students outside the classroom.”

Student course evaluation forms were also reviewed in the analysis. Of the 19 questions asked on the form, nine of them addressed or evaluated experiential learning, student engagement or instructor effectiveness. Examples include: “This course had lab/studio/field experiences,” “What experiences were most valuable?” and “What experiences were least valuable?”

Practice

It was also important to the researcher to understand the current practices of the department so that developmental efforts moving forward take the current landscape into consideration. The theme of Practice had the following subthemes: Activity and Move/Do.

Activity

In the questionnaire and the focus group, faculty were asked to describe their current use of active learning, and their responses reflected a large variety and complexity of active learning strategies. “Group projects and presentations, they teach to the other students,” “Lab activities, case studies, group discussions, debates, presentations, games like Jeopardy,” “I also do like peer review type activities where you may do a Q &A on your own, and then compare your answers to your classmate’s answers” and “Digital applications, flipped classroom, and other activities.”

Faculty also expressed the value they find in using these types of activities: “I use a lot of case studies…then I kind of tweak the assignments to meet their career goals and put them in, and almost like learning groups.”

Move/Do

The kinesiology faculty also described the integration of movement and doing things in the classroom as examples of how they are using active learning strategies currently. They said, “allow students to learn from doing” and that students should have the opportunity to “view/handle” when learning. The faculty discussed examples where they have students physically up and moving during the class setting, “Last week we did a goose chase around campus, and so they had to go to different sites and take pictures and I gave them extra credit if they got an admissions representative in the selfie.”

Barriers

The project also sought to understand the barriers the faculty encounter when using active learning in the classroom and on campus so that development moving forward can consider ways to overcome the barriers. The Barriers theme had several subthemes; Technology, Time, Faculty, Students, Resources and Content.

Technology

Faculty pointed to technology as one barrier to the use of active learning in the classroom. The questionnaire and focus group data both had examples of technology as a distraction barrier in the classroom citing "technology" as a barrier and "one of the biggest issues is cell phones." One faculty stated:

> I have to trust that they're actually googling or looking at the app that we were working on, or whatever but half the time you ask them a question and they're, 'I didn't hear you.' 'Well, I imagine you didn't because you're on TikTok.'

Time

Lack of time was identified as a barrier to the use of active learning in the classroom. Specifically, faculty were in agreement that preparing for and learning how to use active learning requires more time from their schedules. Faculty said that "taking the time to plan for it" and "taking the time to learn new technology techniques" limit the incorporation of active learning in the classroom. One faculty member pointed out that, "I hold myself back by not taking the time to learn more tech savvy tricks so that students could use more in my classroom."

Faculty

The data also identified faculty perceptions about how new pedagogical approaches can obstruct the incorporation of active learning in the classroom. One faculty explained, "There is a little bit of skepticism um among some faculty with 'Oh, we did that once and it was a failure.'" Attempts at trying to use new techniques, technology and campus resources can be a disruption to the previous way of doing something and faculty revert to known methods. A faculty member stated that "I'm so used to doing things the way I've done them. I've tried to use other resources on campus, but I've gotten so used to doing it and finding ways on my own."

Students

Students' personalities and perceptions can also impede the faculty adoption and use of active learning. Faculty said that "not all students are willing to be engaged and collaborative," "they're not sure how to take on the role of the active learner" and "they might be a little shy in groups." Student preparation is an important component to the use of active learning in the classroom which can be a limitation. One faculty explained, "When we get to class and no one has completed the pre-class work, we can't do the activity and I'm stuck falling back to teaching the material through lecture."

Student personalities were a final barrier to active learning. The wide age range and differing personalities create difficult situations. The faculty disagreed on how to handle these situations with personality. They found that there is a delicate balance that is required. One described a student's response to presenting information in class: "I had a student from the Middle College say, 'I will do anything. I will present to you, but I am absolutely mortified. Um, I will shut down. I will have a panic attack.'" Yet another pushed and said, "I tend to be, maybe on the little tougher side… I think at some point the kid's going to have to be able to stand up in front of someone, a whole big group."

Resources

Financial and infrastructure resources were identified as barriers to incorporating active learning into the classroom but there was not a consensus on the issue. "I think the resources here are good. Um, they're not great, they're good." When addressing resources as a barrier another faculty was more specific, "I think financially is where that would probably be the case." A third faculty said that they felt that "active learning can be facilitated with what we have access to currently." An infrastructure recommendation by the participants included a better learning

management system (LMS) that guides on ground coursework and online learning for students. “Better LMS. Guidance on creating interactive online modules that encourage completion before class.”

Course Content

Participants explained that course material can control how much active learning is used in the classroom. Faculty expressed that “content becomes a challenge” and “The amount of time that we can do some active experiences is definitely less in those science heavy courses.” One example of this in the data was a faculty reference to the science density that some courses contain:

> I think that the more science-dense courses are a little bit more difficult to um, to do that with, to do active learning. There are ways but I do a lot more lecture in something like biomechanics than I do in strength and conditioning.

Facilitators

Facilitators were explored in the project also and emerged in all data sets. Facilitators serve as pathways to increase, enhance or improve the use of active learning in the classroom. The Facilitators theme also had subthemes; Student Engagement, Resources and Support.

Student Engagement

Faculty participants discussed ways that positive student engagement and experience with active learning can be a facilitator to using more active learning in the classroom. Faculty pointed to “collaborative things that they enjoy,” “the majority of the class is very engaged but it’s because it’s the subject that they see helping them in the future,” “they have a lot of fun in there, you know, debating and all that.” The focus group moderator reiterated their engagement responses by saying, “so buy in helps um another word to keep saying to mind that I think you’re

getting. It is kind of this authenticity of like, when we can make the content authentic to what they want to do." A specific example of this came from one faculty member: "Like the coaching class… they're in a class where they see the value of how this is going to help me in the future um, they're very engaged."

Resources

There are newer resources on campus that allow for innovation in teaching and learning through the campus Global Communication Center. The faculty pointed to the Global Communication Center on campus that was created as a part of a Title III grant to improve student learning and retention. Participants agreed that this is a resource that aids in their instruction and incorporation of active learning but is not utilized by students and faculty enough. "I've used our reference librarian and the communication center." "The Global Communication Center, I think, is one area that is underutilized right now."

Support

Support facilitators emerged as ways that the campus culture and beliefs ease the incorporation of active learning in the classroom. "I definitely feel support for my ideas," "I've felt welcome since day one here." A faculty explained the campus support in this way:

> I feel very supported by my department chair. Um, the my fellow faculty and the department, definitely the Dean of the faculty. I think our support potentially lacks a little bit when it comes to budgeting. But from a personal level I've felt supported all the way up to the President.

Overall, the faculty had positive perceptions of working together and their collegiality, "Hearing these ideas and stuff, I love the support and the collegiality that we have in the department."

Discussion and Recommendations

The strategies associated with active learning are diverse and varying, but always involve the student at the center of the learning process. The kinesiology faculty in this case study expressed an agreement that the use of active learning is beneficial to students while also explaining barriers to the adoption in the department. The case study revealed several areas to highlight for this department: how the faculty learn to teach, student engagement and active learning, common barriers and facilitators for the faculty and ways that the campus supports active learning. Each of these areas will be important in the development of continued efforts to improve the use of active learning in the department. This data was collected during COVID, but does not focus on the impacts of COVID on active learning classrooms or experiences. Therefore, the context of the research is focused on faculty perceptions of active learning up to this point.

Pedagogical Experience

While a few participants pointed to pedagogical training courses as a way that they learned to teach, the group overwhelmingly responded that practical experience and observation were the primary ways that they learned to teach. They went on to say that they appreciate the collegiality in the department and focus group discussions inspired the sharing of ideas and created an interest to understand what others are doing. This finding is in agreement with the occupational socialization theory that says if instructors are not exposed to a teaching method early in their training they are less likely to adopt it (Pennington, 2021). Pennington explains that mentorship for new faculty in teaching roles is important. In summary, many faculty who are teaching in kinesiology higher education classrooms have less exposure to pedagogical approaches and therefore may be less likely to adopt emerging practices.

The faculty in this study indicated that they are open and eager to observe one another and learn new ways to incorporate active learning in their teaching. Professional development and dissemination of findings will include observational guidelines for the department and the sharing of ideas with the teaching community. The observation model will be called *Sit One, Share One* - sit in on one class and share one class with colleagues each academic year. An observation template form has been created so that the faculty can provide constructive feedback and reflect on how they might incorporate similar techniques in their own class. This observation and form are not a part of teacher evaluation for promotion and tenure and will not be shared with anyone other than those involved in the observation. Mentorship of new faculty will also be established as this has proven to be useful in transitioning a new professor into the higher education classroom. The mentorship program will serve several roles: orientation to the campus, department and student culture, partnership in teaching and it will be an intentional place that a new faculty member can ask questions and share ideas.

Active Learning and Student Engagement

The faculty participants overwhelmingly agreed that a key benefit and reason to use active learning is that it promotes greater student engagement. There is higher engagement in active learning than if an instructor just provides a didactic lecture, students absorb more information and follow up with the instructor through active learning (Deslauriers et al., 2019; Doyle, 2019; Freeman et al., 2014; Knudson & Meaney, 2018; VanAmburgh et al., 2007). The faculty said it can be difficult to keep students engaged if they haven't done the pre-class work or if the in-class work is not for a grade. Research suggests that when students recognize the cognitive effort required with active learning, their initial perception could impair their learning, but instructors can use informative strategies at the beginning of a course to improve students'

response to active learning (Deslauriers et al., 2019). These included discussion with students about the value of active learning and the cognitive efforts required as well as giving an exam early on so that students can see the results of their active learning and cognitive efforts (Deslauriers et al., 2019). Because the faculty recognized student engagement as important yet challenging, it is essential to outline how various active learning strategies increase student engagement moving forward.

Moving forward, it will be important to share ideas and ways to format the pre-class work so that it is completed by students. Research supports student perceptions as flexible and easily overcome with these types of explanations. Facilitative efforts and professional development pieces will include discussion and inclusion of student engagement and methods to increase or maintain engagement with active learning. This will happen in several ways - a student syllabus statement, dissemination of findings and explanation of active learning in the KIN club meetings and in our Introduction to Kinesiology Course. A departmental syllabus statement will be created and shared with students in department syllabi and in instructor explanations of active learning and its benefits. Faculty will work from sample statements to create their own through the dissemination process.

Barriers and Facilitators to Address

It is important that faculty have positive perceptions and experience with active learning and are able to seamlessly integrate active learning in their classrooms. Research supports that regardless of the barriers, faculty are able to overcome one or the collective value of the barriers in practice (Michael, 2007). Because of the time to change teaching methods, some faculty in this study indicated that they have a tendency to fall back on ‘the way it has always been done’ but this sentiment was not shared corporately in the department. While faculty members have

observed active learning in a classroom setting and predict favorable effects of the method on student performance and motivation, they do not use the methods. They ranked lecture-only methods as not highly effective yet report using it third most frequently. The faculty in this project expressed eagerness to share strategies and incorporate new ideas but say that they are concerned it will be time consuming. Instructors can add activities one at a time or just a few new activities in one course in one semester.

Efforts moving forward can be simple and streamlined encouraging small changes over time. In the dissemination of findings two active learning strategies will be incorporated as examples for the kinesiology faculty. An infographic will be shared that outlines how faculty can incorporate one technique at a time rather than overhaul an entire course. In addition, to address technology and resource concerns, efforts moving forward can include ways that the Global Communication Center can be used by faculty and staff. Implementing colleague observations and mentorship will also help the department's faculty to learn new, simple, easy to incorporate active learning in the classroom and increase the use of the Global Communication Center on campus.

Campus and Administrative Support

As a campus with a primary teaching focus, the faculty are encouraged to use innovative teaching strategies and they feel supported by administration. In other research, a contributing factor to the negative perceptions of faculty can be the potential to receive negative feedback in Student Evaluations of Teaching (SETs) also referred to as Student Ratings of Instruction (SRIs). Fear of negative student evaluations following a substantial change in teaching methodology could pose a barrier to faculty changes in adoption of active learning strategies. The participants in this project did not report any concern about negative student evaluations. Rather, they pointed

to the freedom to be innovative and the positive responses they have received as motivation to continue to adopt the pedagogical approach. In this study, student evaluation forms do not confine faculty to traditional lecture methods as the evaluation asks questions about experiential learning. Further, faculty discussed the support they feel from administration from the department all the way to the President of the College. The promotion and tenure guidelines at the college are guided primarily by teaching effectiveness where innovation is encouraged.

Based on the findings of this project and as previously discussed, departmental efforts moving forward can include explanations to enhance student engagement and attitudes about active learning, establish teaching observation, mentorship and idea sharing and capitalize on campus resources with the confidence in knowing that the efforts will be supported on campus by administration.

Conclusions

As the kinesiology discipline has evolved so should our methods in preparing kinesiology students for a future in an interactive, technology driven industry where problem solving, communication and critical thinking abound at the forefront of daily work. The majority of the American Kinesiology Association learning outcomes promote higher order thinking according to Bloom's taxonomy verbs, using terms like *critically evaluate, design, create and demonstrate* (Chodzko-Zajko, 2014). In order to remain current and produce students for a modern workforce, our kinesiology department will be on the leading edge of pedagogical shifts in higher education.

CHAPTER II: DISSEMINATION

Upon completion of the dissertation research project, the findings will be disseminated to the kinesiology department. Further, members of the administration will also be invited to the conversation. The dissemination will be in the form of an interactive conversation during a department or specially called meeting that will last approximately one and a half hours. This amount of time is typical for our meetings. It will be held in a commonly used classroom by the department that is arranged as an active learning space. The meeting will take place in early April as the semester is closing. This timing is ideal as program assessment is being completed and before faculty are designing their courses and choosing curriculum for the following year.

The conversation will be led by the primary researcher but after the explanation of each topic, a question will be posed to the group for feedback and open conversation about moving forward. These discussions will center around how the department can overcome barriers and increase facilitation of the strategies for active learning in the kinesiology classroom. A script outline of the interactive conversation follows here.

Handouts to have prepared for participants prior to the meeting include: Codebook Summary Chart (Appendix F), Active Learning Continuum and List of Activities (Appendix H), Infographic - 10 steps to incorporating Active Learning in the Classroom (Appendix I) and Colleague Observation Form Template (Appendix J).

Introduction and Thank You

Thank you all for being here and for your participation in my dissertation research project. The goal of our meeting today is for me to share the findings of the research project and discuss ways that we can help each other in continuing to use innovative approaches in our classrooms. The meeting is meant to be interactive. I will discuss a section of my project and

pose questions throughout so that we might discuss it. Feel free to ask questions and speak openly. I am no longer collecting data but my goal is to help support you and our students in any necessary to help in the teaching and learning process in our classrooms.

Purpose and Aims of the Project

The classroom in higher education hasn't undergone significant changes in over 100 years. So many campuses and classrooms are still using lecture-only methods where a teacher stands at the front of the classroom delivering content and testing students on the regurgitated information. **Describe the classrooms and teachers you remember as an undergraduate.**

It is very common that instructors in higher education teach the way that they were taught. The theory that supports this is the occupational socialization theory which says that if instructors aren't exposed to a pedagogical process in their early training, they are unlikely to adopt it once they begin teaching. Further, most professors in higher education are not prepared to teach but to do research. In the classroom, applied, active learning combines academic content and assignments with skill competencies, responsibilities and relatable scenarios. The active, student-centered approach benefits the learner in many ways; improved student engagement, class attendance, improved course pass rate, decreased dropout rate, content retention, enhanced cognition, information transfer, professional skill development, attitudes toward the discipline and benefits to female and first generation college students. Research shows that while faculty recognize the benefits of active learning in the classroom, they are slow to move to the methods for various reasons.

The purpose of my research project was to assess faculty perceptions of active learning and determine what barriers and facilitators exist so that changes can be made to support faculty in the department.

Methods Used

My project used a qualitative approach. To promote trustworthiness, multiple sources of data were collected: document analysis, a questionnaire and a faculty focus group. The documents that were analyzed included the college's strategic plan, student evaluation forms and promotion and tenure guidelines from the faculty handbook. The questionnaire yielded a report with the answers to the open ended questions and from the focus group I received a de-identified transcript so that I did not know who participated. As you recall, as the department chair and primary researcher I was not privy to who participated. In the qualitative approach I took all of the documents, responses and transcripts and conducted constant comparative analysis and coded all of the data for like terms, phrases and ideas. My data was triangulated because I used three data sources - documents, questionnaire responses and the focus group transcript. It was important to have these three data sources so that the findings weren't biased by just one or two data sources. This increased the trustworthiness of the data and findings. I created a code book with themes, subthemes, definitions and examples from the data. I have always done quantitative research so I learned a lot in this process. In qualitative analysis you are looking for words and phrases that are recurring and speak to the aims of your research. I would read through a document, then re-read it and highlight words and phrases. I started what is called a codebook where I listed the words and phrases as I reviewed each document. Then, I sorted them into overall themes and then sub themes within each theme. I used the constant comparative method which meant I reviewed the documents over and over again until no new words, phrases or themes emerged. Here is a summary of the themes, subthemes, definitions and some examples from the codebook (See Appendix F).

Summary of Findings

The findings in the data were coded into themes; Perceptions, Practice and Barriers/Facilitators. Under the perceptions theme there were subthemes: philosophy, pedagogy, active learning and professional evaluation and development. Here, the data pointed to thoughts, perceptions and experience of how the faculty learned to teach, currently teach and how faculty are evaluated for performance. The documents also pointed to the campus culture that encourages innovation in teaching and how faculty are evaluated primarily on teaching as opposed to research or publication as a primary evaluator. The practice theme had subthemes of activities and moving/doing. This data set gave a lot of examples of how our faculty are currently using active learning in their classrooms. The final themes of barriers and facilitators pointed to the following subthemes: time, faculty perceptions, student engagement and personality, technology/resources and course content. These barriers and facilitators were all very common in the literature and how each is addressed varies based on the campus, student needs and the faculty themselves. Here is a summary chart of the themes, subthemes, their definitions and some examples (Appendix F).

Highlights of the Findings

Some of the highlights of my findings were that our faculty agreed overwhelmingly that active learning promotes student engagement which as a department we find of great value and importance. Second, while some of the faculty pointed to pedagogical courses as ways they learned to teach, most of us learn by observing other instructors or by teaching and honing the practice over time. Next, we are using a wide variety of active learning strategies and when ranking the use of strategies, the faculty overwhelmingly chose group work as their primary and preferred method of teaching. On average we use active learning 63% of the time and lecture-

only 28% of the time. While this is a high percentage of reported use, the goal of this research is to help remove barriers and simplify the implementation in any way possible. The primary barriers we identified were the time it takes to change teaching methods, student personality and willingness to do their part to be prepared for the activity and some courses have content that makes it more difficult to use active learning. There were mixed feelings about the financial resources as a barrier to active learning but overall it seemed that increased financial resources could be used to increase student experiential learning via field trips or stipends for internship. Two facilitators to the use of active learning was administrative support and the global communication center as a resource for faculty and students. **Would anyone elaborate on a solution they can see to one of these barriers?**

Moving Forward

Moving forward I would like to encourage more conversations about what we are doing in our classrooms. Specifically, over the summer and in faculty workshops in August, we would finalize some of the following.

Active learning continuum handout: I brought an active learning continuum diagram and a list of ways others use active learning in their classrooms. This list is not all inclusive but is a starting point for ideas and discussion. (See Appendix H for Active Learning Continuum and List of Ideas). As you can see you are doing several of these activities in your courses already. I have also brought an infographic that outlines 10 steps to beginning to incorporate active learning in the classroom (Appendix I). As you review each of these steps you can see that you do not have to overhaul an entire course. Start with just one class session. Let's walk through the 10 steps as a group.

Colleague observation: The focus group revealed that the collegiality of our group is a strength and sharing ideas was inspirational and motivating for our faculty group. I want to encourage regular, scheduled observation of and by faculty members each semester. By this I mean that each of us could sit in on one other class session of another faculty member each semester. This can be by invitation or discussion between or among faculty. This would not be any part of faculty evaluation but rather a chance to observe what someone else is doing or to ask for feedback on a new method you are trying in class. This process is meant to empower and inspire one another and ourselves. For instance, I am really interested to see how Professor A incorporates digital storytelling in his motor behavior class. I would ask to sit in on a class where he believes I could observe its use and learn more about it. I hope that we can work together to create the framework for these observations and a form that could be used to provide feedback for both parties. See Appendix J for a template of an Observation Form. **Can you think of something you would share if a faculty wanted to come observe your class or something you want to see in another class?**

Mentorship of new faculty: As new faculty join our department we would pair with them to share ideas and ask questions during their first year of teaching in our department. Over time we can develop a structure for this mentorship but initially it will be for continuing to nurture the collegiality of the department, sharing ideas between and among faculty and answering questions a new faculty might have about teaching on our campus and the resources available.It is likely that the mentorship program exposes a new faculty to each faculty member in observation but pairs them with one faculty to create trust and collegiality.

Departmental message to students about active learning: Research shows that when we explain to students why we are using various techniques in class, they are more likely to adopt

the techniques and be engaged in the learning process. This summer I would like for us to develop a statement we could include in course syllabi and in discussions with students that would explain active learning and its benefits.

Future Research

In closing, I think that future research could include student perceptions or thoughts about their experiences with active learning in our classrooms. The research shows that students have some negative perceptions but that those can be overcome by explanation of active learning and their role in this learning environment at the beginning of a course and on the syllabus. I would also like to expand the research to other departments in our school or on our campus. Our annual assessment reports for each course of study/major will allow us to track changes to pedagogy and how it is changing our classrooms, teaching styles and success of students and our programs. Thank you all for your time today and again, for your participation in my research.

We will follow up in the fall faculty departmental workshop to finalize the Observation Template and the Student Syllabus Statement. I hope that the information I have shared will help you as you are preparing your courses for next semester.

CHAPTER III: ACTION PLAN

Following the departmental discussion there will be follow up within the department to schedule observations and more departmental discussions. There will also be an opportunity to present the findings at the College's Center for the Enhancement of Teaching and Learning. Further dissemination of the findings may be possible on campus and in other small campus communities. Presentation at the 2024 National Association for Kinesiology in Higher Education conference will be pursued. Further research endeavors also exist to continue the improvement of the use of active learning in the kinesiology classroom.

Departmental Discussions, Observation Plan and Mentorship

In the short term and after the dissemination of the findings to colleagues in the department, discussions and conversations with colleagues will occur. Over Summer 2023 the observation plan, mentorship and student statement will be discussed and in August faculty workshop time we will finalize these three components. Faculty discussions will center around how the department can overcome barriers and increase facilitation of the strategies for active learning in the kinesiology classroom. An observation plan will be created where faculty in the department sit in on a class in two different faculty member's courses each semester. The goal of the observation would be to see and discuss ways that active learning was used in the class. A brief follow up at the end of the class or soon thereafter will include a debrief and discussion of what worked, what was new or the same and room for growth. See Appendix J for Observation Follow Up form. This is a template and will be designed using feedback from departmental faculty. This form will be shared with the observed faculty member and will not be incorporated into the teacher evaluation, these observations are for the professional development of the faculty in the department.

A faculty mentorship program will be established to help newer faculty members transition to teaching on our campus and/or in higher education. The goal of the mentorship program will be to continue to promote positive collegial relationships, share teaching ideas and strategies and answer questions a new faculty member may have about teaching or our campus.

The finalized student statement can be included in the syllabi in the department and at the beginning of the semester with students. This statement will explain the benefits of active learning and how it may be incorporated into their courses. This statement will be written based on feedback from all faculty in the department.

Presentation at the College's Center for the Enhancement of Teaching and Learning

The research was funded by a grant from the Greensboro College Center for the Enhancement of Teaching and Learning (CETL). As a follow up to the grant funding, there will be an opportunity to present at a CETL Workshops on campus in Fall 2023. These are conducted regularly on campus and all faculty are invited to attend. The findings of the research will be outlined and interactive discussions among faculty groups will occur similar to what was done as a kinesiology department. The goal of these discussions will be to idea-share about how various faculty are already using active learning strategies. This session will serve as a required workshop based on funding to disseminate findings but also as a brainstorming on campus as to how active learning is being used which can inspire faculty for new uses. Four CETL workshops are held throughout the academic year and this one would take place in September or November 2023.

Presentation at the College's Teacher Education Program

Another goal is to present the findings to the teacher education program (not just the HPETE in our department) faculty and students. These teachers are being prepared primarily for

education in K-12. According to the Occupational Socialization Theory, if teachers are not exposed to these methods and their importance in the first two stages of a teacher's experience (1- training and 2 - initiation into the classroom), they are unlikely to adopt them at all (Pennington, 2021). While active learning methods are covered in these programs, this presentation would provide an additional reference and outside facilitation of these methods. The researcher would work with the Education department to determine how best to share this information with their students. The presentation would be conducted in coordination with the Accessibility office on campus and the campus Universal Design for Learning Director. The Education department faculty buy in would be critical in implementing this portion of the plan. The time commitment and function of this department is very different to the kinesiology department and this researcher recognizes and respects these differences. The goal would be to share the findings in a way that is beneficial and in cultural alignment with the department. This likely would occur in Spring 2024.

Presentation at National Association of Kinesiology in Higher Education

The researcher will submit a proposal to present at the 2024 National Association of Kinesiology in Higher Education. The mission of NAKHE is to foster leadership in kinesiology administration and policy as it relates to teaching, scholarship and service in higher education. The findings of this case study would be presented as an example of how one kinesiology department perceives active learning and ways that we are moving forward to promote more active learning in our kinesiology department and why this is important for the discipline moving forward. The outcomes and next steps being made based on this project would be completed by the time of this presentation and can be shared. Proposals for the January 2-7, 2024 conference are due August 1, 2023. The theme for the 2024 conference is Expanding Beyond Our Borders.

Future Research

Long term goals would include the opportunity to conduct research more broadly in other departments on campus. Additionally, a research project could explore student perceptions of active learning so that any alteration can be made to overcome the barriers they face. Students will also receive dissemination of findings through the student syllabi statement created by faculty. We will also disseminate all findings in our kinesiology club meetings and the Intro/Foundations of Kinesiology class. Future research efforts will include a similar project in other departments on campus as well as an investigation into the kinesiology department student population to determine how their perceptions affect the use of active learning in the department. In addition, as research develops to summarize the effects of the COVID 19 pandemic on active learning, higher education and minority student populations, future research would consider how the post pandemic world approaches active learning in the kinesiology classroom.

Conclusions to Action Plan

The aims of the research project were to (1) identify the kinesiology department faculty's perceptions of active learning and (2) determine what the kinesiology faculty need to facilitate the use of and overcome any barriers to active learning in the department. The overall goal once this information was obtained was to create professional development opportunities for the faculty in the department and to improve their use of active learning in the classroom. Beyond the departmental discussion, observations will be regularly scheduled, a presentation in a Center for the Enhancement of Teaching and Learning and a separate presentation to the Department of Education students. Future research efforts will include a similar project in other departments on campus as well as an investigation into the kinesiology department student population to determine how their perceptions affect the use of active learning in the department.

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APPENDIX A: PARTICIPANT RECRUITMENT LETTER

Dear Colleagues,
I hope this email finds you in good health and rested from the summer. My name is Anna Carter and I am reaching out for your assistance with my research. I am currently a doctoral student in the EdD in Kinesiology online degree program at UNC Greensboro. I would greatly appreciate your input for a research study examining "Active Learning in the Kinesiology Classroom: Faculty Perceptions and Needs**".**

The purpose of my research is to assess kinesiology faculty perceptions of active learning and determine what will facilitate the use of active learning in their classrooms. The goal is that future efforts can be implemented to increase active learning in kinesiology classrooms and best prepare students beyond graduation. I am using our kinesiology department to obtain data to help our students but to also disseminate the information to programs like ours. I hope you will consider participating in the interview and focus group. Participants will have the option of receiving a summary of the research findings upon completion of the study to better inform your teaching practice.

Your participation in this study would involve the following:
Individual Questionnaire (approximately 30 minutes)
Focus group discussion (approximately 60 minutes)

Everyone who is recruited will receive a gift card, regardless of participation. These will be sent when the questionnaire data collection is complete.

Your participation in the study is ***completely voluntary***, and you may choose to end your participation at any time without cause or penalty. Other than the time you spend completing the questionnaire and participating in a focus group there are ***no known or foreseeable risks*** involved with this study. Questionnaire and focus group responses will remain confidential and no identifying information will be linked back to you. I have received IRB approval from UNC-Greensboro and Greensboro College.

Click here to access the Consent Form and Questionnaire. You will be directed to a Qualtrics driven questionnaire and your answers will be anonymous. You will be contacted by Abbie Wrights to participate in a faculty focus group as well.
If you have any questions about the study please contact **Anna Carter, Principal Investigator at ascarte3@uncg.edu, Dr. Pam Brown, Faculty Advisor at plkocher@uncg.edu** If you have concerns about how you have been treated in this study, please call the Office of Research Integrity at 1-855-251-2351.
Thank you for your time and consideration.
Stay healthy,
Anna Carter
Doctoral Student, EdD in Kinesiology
UNC-Greensboro **ascarte3@uncg.edu**

APPENDIX B: DOCUMENT ANALYSIS AND REFLEXIVITY JOURNAL

Document Analysis

As you review the document - Does this document provide any barriers or facilitators to active learning in the kinesiology classroom?
Journaling - be reflective and keep objective perspective
Do I have any biases in the document list I have chosen?
After answering the initial questions, review content for themes. Review content multiple times (iterative coding) after refining the codes and themes.

Name of Document	Where was the document located? Was it digital, in print or both? Does it expire or live timelessly? Purpose of the document?	Who wrote the document? Who has access to the document? How or when is it distributed and to whom? What was left out? Why was it written?	Is it public doc, personal doc or physical evidence? Are there biases in the document? Is the document confidential? Credibility? Reliability? Pertinence? Legitimacy?	What about the document supports active learning (facilitates)?	What about the document creates a barrier to active learning?	Other notes:
Greensboro College Strategic Plan	The strategic plan was approved by the board of trustees in the past 30 days. The only strategic plan was 2015-2020 and due to the pandemic the writing and publication	The strategic plan lives on the school website and is a public document. The plan recently approved was not on the website yet at the time of analysis. The President and his Cabinet wrote the strategic plan and it is approved by	It will be a public document available on the school website.			

	of the new plan was delayed. I had to get the recently approved, not quite publicly published plan from the Chief of Staff directly.	the Board of Trustees.				
Greensboro College Promotion and Tenure Guidelines Adjunct Eval?	The promotion and tenure guidelines are a piece/part of the current faculty handbook. This document was available in print and online. The purpose of the document is to outline the process to receive promotion and/or tenure. Adjunct evaluation is also	The faculty handbook promotion and tenure guidelines were written by faculty, human resources and administration. It does not serve as a contract for employment. All faculty have access to the document. The document is meant to outline the guidelines for promotion and tenure and specifically what is included in a self evaluation - comprehensive, regular or focused.	This document is not public. The biases in the document are minimal as it was written by faculty and administration.	The promotion and tenure guidelines support active learning in that the college views teaching and professional development as very important in evaluation of its faculty. Student evaluations, peer evaluations and self evaluations of teaching are all included in the guidelines. Professional development and participation in workshops, curriculum development and ongoing improvement in teaching are all		

	included in the faculty handbook.	There are no research or publication requirements in the Promotion and Tenure Guidelines. Promotion and Tenure is based on teaching and advising effectiveness, service to the college, profession and/or community and professional development and reflection. The faculty handbook is being revised this academic year and the promotion and tenure guidelines may or may not stay in the full document.		included in the guidelines.		
Greensboro College Student Course Evaluation Form	This document is not easily available to faculty or staff. The student evaluations are completed by a third	This document was revised in the past 2 years to be more succinct and flexible for varying pedagogical approaches.		There are questions in the student course evaluation that are open and flexible enough to include active learning but the questions are not specific to active learning.		The document contains quantitative and qualitative questions. Ratings are included as well as open ended questions.

	party (IOTA) and the document had to be obtained digitally from the company.					Students also evaluate their own participation and preparedness in the course.

Journaling and notes:

I gathered all the documents from various sources which took about two weeks. The Promotion and Tenure Guidelines are a piece of the Faculty Handbook which I had access to online as a member of the faculty. I secured this document on September 17, 2022. The course evaluation form is not available to faculty very easily. I reached out to the Dean of Faculty and the Provost and they were able to reach out to IOTA, the third party company that hosts and distributes our student course evaluations. I was sent a digital copy of this form also (September 21, 2022). The Strategic Plan that is posted online is the GC2020, a five year strategic plan from 2015. I reached out to the Dean of Faculty and Provost for assistance. The Dean of Faculty was able to verify a new strategic plan was approved by the Board of Trustees in May 2022. I was sent a copy of this plan for analysis (October 3, 2022).

I completed a read through of each document once I had them all. Upon a second read through the same day, I highlighted words, phrases and quotes that speak to my research aims. I put the documents away for a couple days and then repeated the process. After a couple more days I went back and started writing words and phrases in the margins of each document that summarized each area that was highlighted, looking for similarities.

When the questionnaire responses were submitted, I ran a report (October 1, 2022) of the open ended response questions and saved it for review. Once I had completed the second pass through of the document analysis, I began the same systematic analysis of the questionnaire responses. I completed one read through followed by a highlighting session on the same day. I put the data away and completed a second read through two days later. I reviewed the documents also on this day so that patterns could be picked up. A final review of all documents and questionnaire responses were conducted on October 10, 2022. At this time I used a dry erase board to list the themes that I saw emerging. I used this list as I created my first edition code book (image below).

My first edition of my code book had three columns where I listed what I thought were codes, but likely were themes that I saw emerging from the documents and the questionnaires. Then I went through each data set and placed words, phrases and quotes as examples of each theme. I have not created definitions yet as the focus group data will need to be added to the code book.

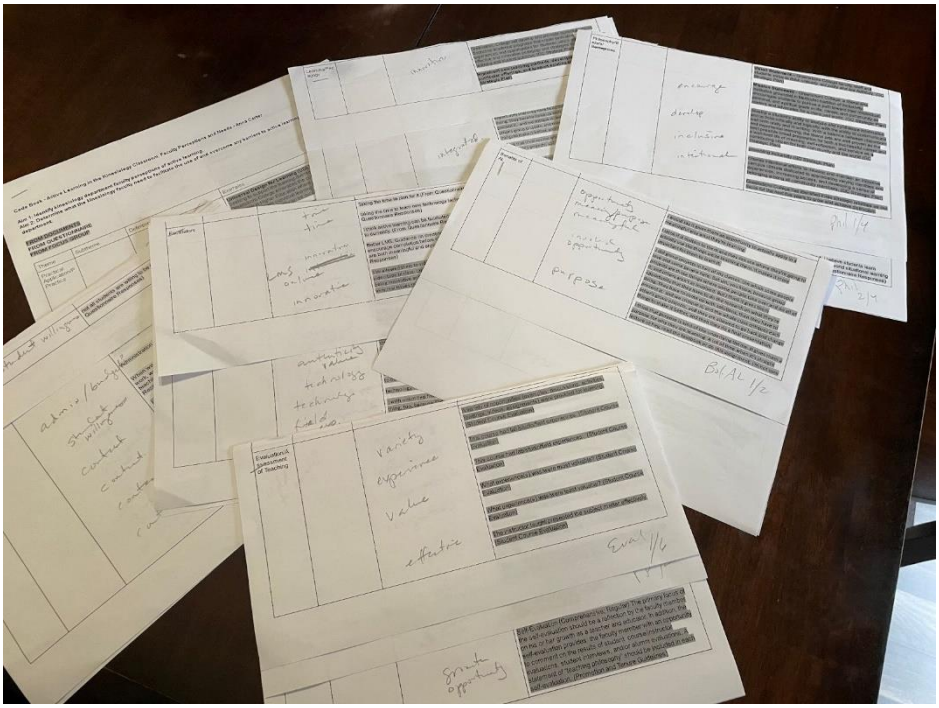
On Friday October 14th, I met with Coder 2 who had also conducted a review of the questionnaire responses. We shared and discussed codes, phrases and themes. We have similar thoughts. She was very helpful in explaining and reinforcing the process and how themes and subthemes will emerge. I have created a second edition of the code book and added a fourth column labeled subthemes and I will begin to sort through the examples in each theme and see if they fit into subthemes.

The focus group is scheduled for October 21st and will be completed by the Focus Group Moderator. She has a copy of the focus group guide with questions and probing questions. One clarification I have asked her to make is relative to the facilitator question. What I found from the questionnaire responses is that the way the question is worded, the answers are very similar to the barriers. Participants are sharing what WOULD facilitate which is very similar to the barrier responses. What I really want to know is what is CURRENTLY serving as a facilitator - so we keep those things in place in the end. The systematic review of the data sets to this point was helpful in creating this clarification for the focus group. Another vague response from the questionnaire was regarding the barrier - "Administration". This response was not fleshed out any further than the simple term. Fortunately, the focus group guide already has a question about the administration at GC and how the participants feel they facilitate or prohibit the use of active learning.

The Focus Group Moderator conducted the focus group on October 21nd and forwarded me a de-identified transcript the same day. She also sent it to participants for any edits. I conducted a first read on Saturday October 22nd. Receiving no edits by Tuesday October 25th, I conducted a first analysis. Using open coding I highlighted (blue) words, phrases and quotes that spoke to the aims of the study. On Thursday October 27th I conducted a second read through of the transcript and another read of each document and the questionnaire responses. At this time I reviewed the code book and began to sort words, phrases and quotes from the focus group transcript into the Theme areas.

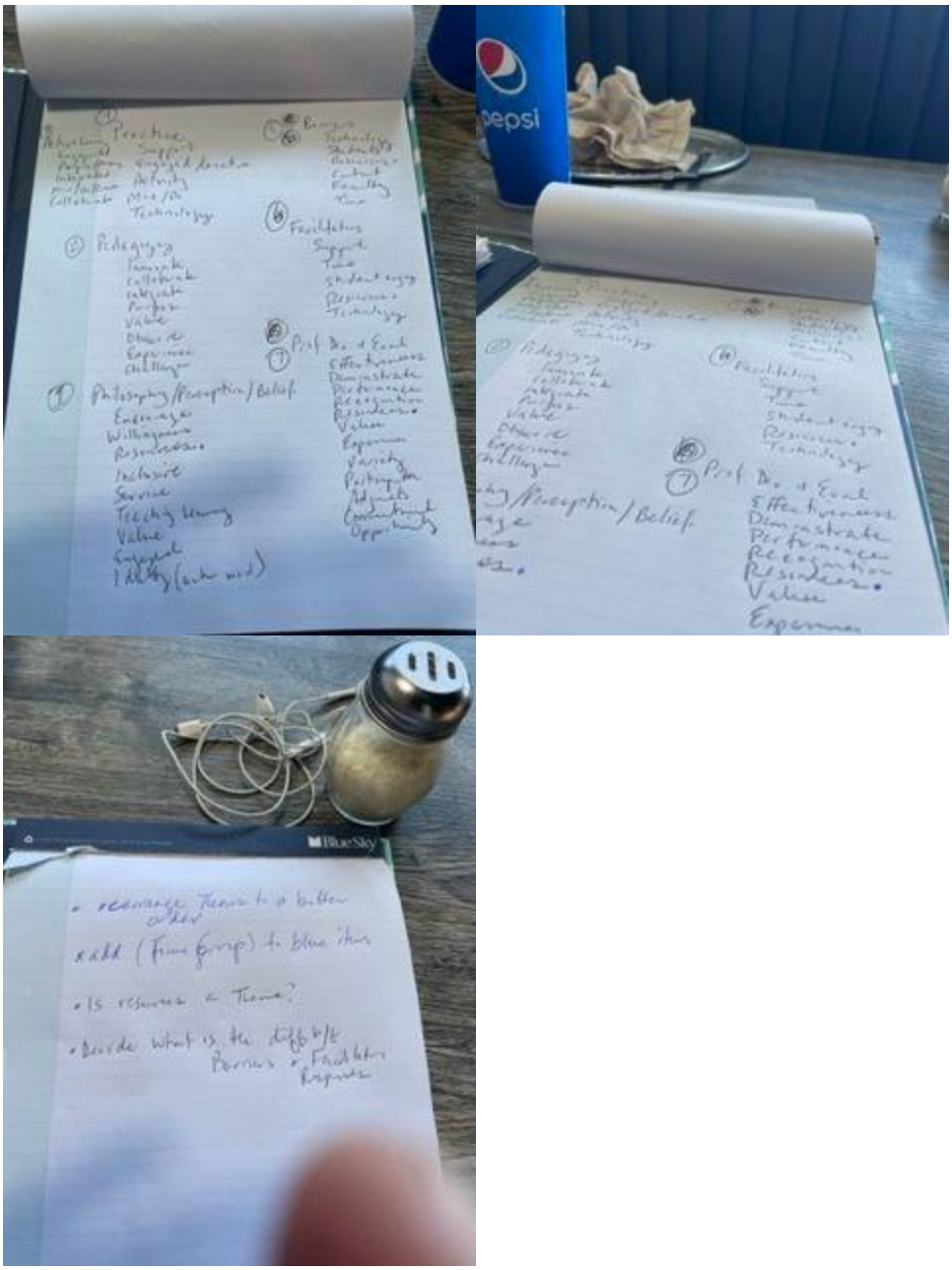
The Focus Group Moderator also took some notes as she listened to the recording while reviewing the transcript and shared her jottings with me. The notes, words and phrases all came from the transcript and are included in the coding and thematic analysis also.

11/2/2022 - Once all of the data sets were copied into the code book under the theme headings, I printed the code book and cut each theme section apart. I then read through the examples under each theme and tagged each with a word or phrase that applied. It was at this point that I saw sub themes emerging as each example centered around similar words and phrases as other examples in the theme. I did this for each theme and then sorted the COPY 2 Code Book to reflect subthemes under each Theme. I combined a couple of themes as their subthemes were similar. For example, I combined Teaching Evaluation Assessment with Professional Development and changed the Theme name to Professional Performance. I met with Coder 2 today to discuss the process and progress. We discussed how the themes and subthemes have emerged and make sense. I will send a question about triangulation to Committee Member 2 and an update/progress email to the committee.



Moving forward I will continue to analyze and comb through the themes and subthemes to see if there are ideas that are in the wrong area, should be added to another area, removed all together, etc. I will also look for triangulation within each sub theme and theme. If triangulation does not exist I will determine if there is support in another campus document or data set that would support the theme. Otherwise the example will be removed (placed outside/below) the code book.

11/9/2022 Today I put myself in time out - at a restaurant for lunch and data analysis (no leaving until you've sorted and reorganized). I had a chance to go through each theme and subtheme and make notes about anything that should change or possibly be combined. I am going to re-order my Themes into a more logical order: Philosophy/Perception/Belief, Pedagogy, Active Learning, Practice, Barriers, Facilitators and Professional Evaluation & Development (name slightly altered again). I am still considering how Barriers and Facilitators are different as many of their subthemes are the same. I will consider a reorganization of the sub themes within each theme later. I am also looking to see if "Resources" needs to be a theme as it appears as a subtheme often. I should do time out more often…

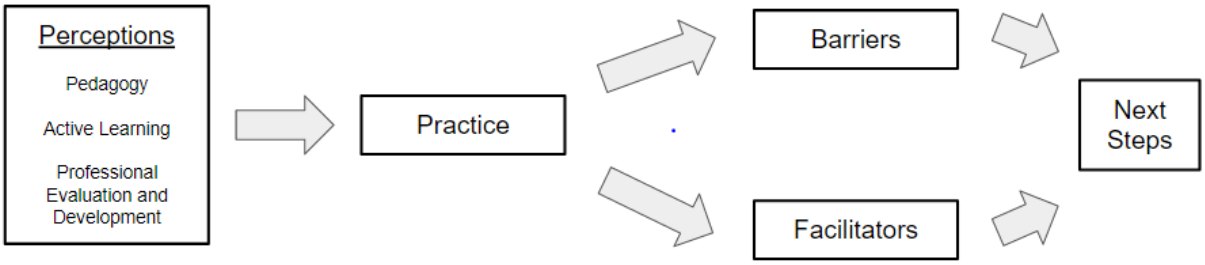


11/16/2022 Today I reviewed Copy 3 of the Code Book and after reviewing the subthemes, several were combined and renamed as there was overlap in several categories. The themes and subthemes seem to be tighter than when I look at Copy 1 and Copy 2. Next I will add definitions to each subtheme. If revision of subthemes is needed at that time it will be completed.

11/17/2022 Today I worked to write definitions for each subtheme. I found that as I wrote definitions and reviewed subthemes that more of them could be combined based on definitions. I think that the codebook is getting much tighter. I have shared it with my committee for feedback and direction.

11/24/2022 I finished the final version of the code book (version 4) today. I also completed a final copy of the Thematic Structure today. See below.

Figure 1. Thematic structure. Faculty perceptions influence practice where barriers and facilitators to active learning are encountered and should be addressed before next steps toward professional development can be made.



APPENDIX C: FACULTY QUESTIONNAIRE

Faculty Questionnaire as designed and distributed in Qualtrics

CONSENT TO ACT AS A HUMAN PARTICIPANT
Project Title: Active Learning in the Kinesiology Classroom: Faculty Perceptions and Needs
Principal Investigator: Anna Carter, ascarte3@uncg.edu
Faculty Advisor: Dr. Pam Brown, plkocher@uncg.edu

What are some general things you should know about research studies?

You are being asked to take part in a research study. Your participation in the study is voluntary. You may choose not to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to you for being in the research study. There also may be risks to being in research studies. If you choose not to be in the study or leave the study before it is done, it will not affect your relationship with the researcher or the University of North Carolina at Greensboro.

Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about being in this research study.

You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

What is the study about?

This is a research project. Your participation is voluntary. The project wants to understand any barriers or facilitators to the use of active learning in the kinesiology classroom.

Why are you asking me?
You are being asked to participate because you are a faculty or adjunct in the kinesiology department at Greensboro College.

What will you ask me to do if I agree to be in the study?
You will be asked to complete a questionnaire which will provide the researcher with some general information about your teaching background and preferences in teaching methods. This should take approximately 30 minutes. Finally, you will be asked to participate in a small focus group via zoom with other kinesiology faculty. During this session you will answer questions about how you use active learning in the classroom and any barriers or facilitators you perceive about using active learning. You will have an opportunity to share with the group and hear others' responses as well. This will take approximately one hour.

Is there any audio/video recording? The focus group will be recorded and transcribed. Your identity in the transcription will be confidential. Recordings and transcripts will be stored in Box. Recordings and any in print notes or information about the recordings will be destroyed five years after collection. Because your voice will be potentially identifiable by anyone who hears the recording, your confidentiality for things you say on the recording cannot be guaranteed although the researcher will try to limit access to the recording as described below.

What are the risks to me?

There is minimal to no risk to participants. "The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants." If you have questions, want more information or have suggestions, please contact Anna Carter, principal investigator AND faculty advisor, Dr. Pam Brown who may be reached at ascarte3@uncg.edu or plkocher@uncg.edu If you have any concerns about your rights, how you are being treated, concerns or complaints about this project or benefits or risks associated with being in this study please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351.

Are there any benefits to society as a result of me taking part in this research?

The benefits associated with the completion of this project include improved use of active learning in kinesiology departments, a better understanding of what can help faculty to use active learning in the classrooms. Faculty and students may benefit from the findings of this study. This includes students on the campus where the research takes place as well as others who may be reached through publication or presentation.

Are there any benefits to me for taking part in this research study?

Through your participation, it is possible that you will learn new ways to teach your students.

Will I get paid for being in the study? Will it cost me anything? There are no costs to you for participating in this study. Everyone recruited will receive a $50 gift card from Amazon regardless of participation in either the survey, focus group, both or neither.

How will you keep my information confidential?

Data collected in the questionnaire and focus group recordings and transcriptions of the recordings will all be stored in Box by the primary investigator. Anyone who assists in coding the data will also keep the data on private, password detected devices. Because your voice will be potentially identifiable by anyone who hears the recording, your confidentiality for things you say on the recording cannot be guaranteed although the researcher will try to limit access to the recording as described below.

Absolute confidentiality of data provided through the Internet cannot be guaranteed due to the limited protections of Internet access. Please be sure to close your browser when finished so no

one will be able to see what you have been doing. Your data will be destroyed five years after the study is completed. De-identified data will not be stored and will not be used in future research projects.

What if I want to leave the study?

You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state. The investigators also have the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped. What about new information/changes in the study? If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:

By clicking "Yes, I consent" below you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consent to take part in this study. All of your questions concerning this study have been answered.

By clicking "Yes, I consent" below you are agreeing that you are 18 years of age or older and are agreeing to participate in this study described to you by the research team member.

The following questions are short answer questions designed to learn more about your teaching background and preferences.

How many years have you been teaching at Greensboro College or other Post secondary institutions? (enter years with a number only)

On average, in the past five years, how many courses have you taught per year? (Please enter a number only. Please enter the number of courses and not total hours of credit each year)

Please indicate if you use the following teaching methods in your courses?
(Click all that apply)

- Group or Collaborative Learning
- Lecture (didactic, teacher speaks with no interaction from students)
- Lecture (interactive, with student engagement via clicker questions, quizzes, discussion)
- Problem solving (case studies, problem sets)
- Reading the textbook, notes, or journal articles while in class
- Videos in class
- Flipped Classroom (view lecture or readings prior to class and use class time for activities
- Online Learning (course is taught online and not in person; synchronous or asynchronous)
- Digital technology (use of smartphone applications or ipad demonstration)

- Games or activities (think-pair-share, one minute paper, classroom assessment activities, etc)

Rank your use of the following teaching methods in the classroom according to the frequency you use the method during class time. Rank from 1 (most frequently used method during class) to 10 (least frequently used method during class). Use the mouse to drag each item to its position in your ranking.

- Group or Collaborative Learning
- Lecture (didactic, teacher speaks with no interaction from students)
- Lecture (interactive, with student engagement via clicker questions, quizzes, discussion)
- Problem solving (case studies, problem sets)
- Reading the textbook, notes, or journal articles while in class
- Videos in class
- Flipped Classroom (view lecture or readings prior to class and use class time for activities
- Online Learning (course is taught online and not in person; synchronous or asynchronous)
- Digital technology (use of smartphone applications or ipad demonstration)
- Games or activities (think-pair-share, one minute paper, classroom assessment activities, etc)

Rank the following learning methods according to the way you feel students learn concepts most effectively. Rank from 1 (most effective method) to 10 (least effective method). Use the mouse to drag each item to its position in your ranking.

- Group or Collaborative Learning
- Lecture (didactic, teacher speaks with no interaction from students)
- Lecture (interactive, with student engagement via clicker questions, quizzes, discussion)
- Problem solving (case studies, problem sets)
- Reading the textbook, notes, or journal articles while in class
- Videos in class
- Flipped Classroom (view lecture or readings prior to class and use class time for activities
- Online Learning (course is taught online and not in person; synchronous or asynchronous)
- Digital technology (use of smartphone applications or ipad demonstration)
- Games or activities (think-pair-share, one minute paper, classroom assessment activities, etc)

What percentage of class time do you dedicate to the use of active learning techniques? (Use the slider to select from 0-100%):

What percentage of class time do you dedicate to lecture-only methods of teaching? (Use the slider to select from 0-100%):

The next several questions are open ended. These questions are designed to learn more about your perceptions of active learning and any barriers or facilitators that exist that affect your use of active learning strategies. Please answer each in as much detail as possible.

How would you describe your personal teaching philosophy?

How did you learn to teach?

I am particularly interested in knowing more about active learning, when you hear that phrase what does it mean to you as an educator?

Describe ways you employ active learning in your classroom.

Describe any barriers that exist that prevent you from using active learning strategies? This could be reasons you choose not to use it or things in our classroom or on our campus that prohibit you from using active learning.

What would help to facilitate your use of active learning strategies in your classroom?

Is there anything that you would like to add from your perspective on the use of active learning in our classrooms?

What other questions would have been of value to enhance this questionnaire?

Thank you for taking the time to complete this questionnaire.

APPENDIX D: FACULTY FOCUS GROUP

ACTIVE LEARNING IN A KINESIOLOGY DEPARTMENT: PERCEPTIONS AND NEEDS OF FACULTY

BEGIN RECORDING
Welcome:

Hi everyone. Thanks again for participating. I am Abbie Wrights and I am conducting this focus group as part of a dissertation research project for Anna Carter. The information will be de-identified, and your name will not be recorded in the dissertation or in any dissemination efforts.

Topic:

Today we are interested in learning more about your perspectives on teaching and learning, particularly the methods you use in the classroom and your perceptions of active learning. Hopefully, this will allow you to learn from each other as well. You were selected because you all teach similar subject matter but bring different backgrounds and expertise to the department.

Guidelines:

There are no right or wrong answers today, only differing points of view potentially. You certainly do not have to agree with each other but please do be respectful of each other and speak one at a time. I am recording and this focus group will be transcribed. However, if at any point you say something you do not want it to be included in the transcription just let me know, I can certainly take it out. In this discussion my role is simply as a moderator to guide the discussion but please talk to each other.

Again, this is voluntary so at any point, if you need to stop, just let me know. Do you have any questions before we continue?

Icebreaker:

- Let's begin by having each of you describe yourself as a teacher using three words.

Active Learning Defined

- How would you define active learning in the classroom? (Participants will write their definition and then share it aloud with the group)

Everyone has varying definitions of active learning. For the purpose of this research we are defining active learning as:

Active Learning defined: Active Learning is an instructional method in which students become engaged participants in the classroom. Students are responsible for their own learning through the use of in-class written exercises, games, problem sets, clickers, debates, class discussions, etc.

- As an instructor, what do you think are the benefits of active learning to the students?

Current Teaching Practices and Preferences

- What are some examples of ways that you use active learning in the classroom?
    - *Probing question:* In which courses do you find it easier to incorporate active learning and why?
    - *Probing question:* In which courses do you find it more difficult to incorporate active learning and why?

Barriers and Facilitators

- Talk about any barriers that prevent you from using active learning in your classes.
- What would make it easier for you to incorporate active learning into your classes?
    - *Probing question: With an unlimited budget what changes would you make to help our students become best prepared for the workplace?*
- How do you feel that your promotion and tenure would be affected by changes in the classroom to increase active learning?
- How do you feel the administration at Greensboro College supports or prevents the use of active learning in the classroom?

Wrap-up

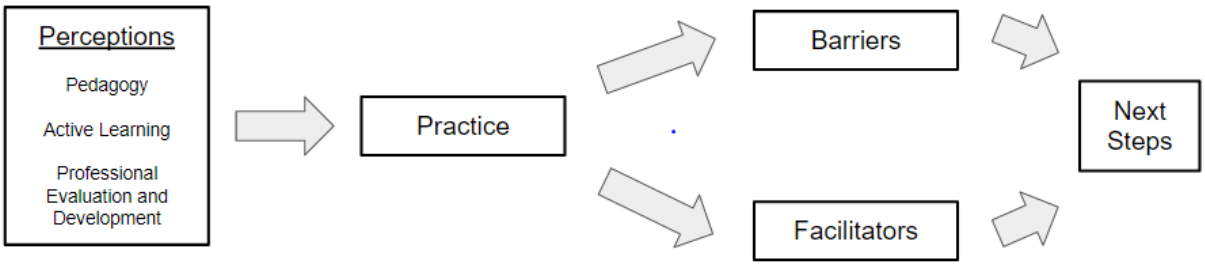
- What else would you like to share to help me better understand your perceptions of active learning?

Great, thank you very much for your time and feedback. A de-identified copy of the transcript from today's recording will be sent to Anna. Feel free to contact me if you have anything to add later.

END RECORDING

APPENDIX E: THEMATIC STRUCTURE

Figure 1. Thematic structure. Faculty perceptions influence practice where barriers and facilitators to active learning are encountered and should be addressed before next steps toward professional development can be made.



APPENDIX F: SUMMARY CHART – THEMES AND SUBTHEMES

Aim 1: Identify kinesiology department faculty perceptions of active learning.
Aim 2: Determine what the kinesiology faculty need to facilitate the use of and overcome any barriers to active learning in the department.

Theme	Subtheme	Definition	Examples
Perceptions			
	Pedagogy (learning and teaching)	Faculty and campus perceptions of pedagogy - teaching and learning.	"I think that purpose is kind of the underlying theme. It gives them a purpose for why they are learning. A lot of time when it's straight lecture or hey, read the textbook or do this assignment, I'm not sure that they really understand the purpose, but especially in kinesiology in this field."
	Active learning	Perceptions of the meaning, purpose, practice and characteristics of active learning.	"(Students are) involved in the classroom through in class work such as group work, case studies, presentations, problem solving, experiences and other applicable activities." "(Students are) physically up and moving while focusing on curriculum or engaged in the lesson by participating in classroom discussions, presenting material to the class, or being able to view/handle study samples/materials."
	Professional Evaluation and Development	Faculty and campus perceptions of professional evaluation and opportunity for professional development as they connect to teaching practice.	"maximize programs that support student retention and persistence throughout the college experience." "Seeking to support the learning diversity of all students, (the) College embraces the concept of Universal Design for Learning (UDL), an innovative approach in Higher Education where content, context and instruction benefit individual learning

			differences, to remove barriers so all students can be successful.”
Practice	Activity	Various teaching practices used to incorporate active learning.	“I did group projects in two of my classes um which some people love and some people hate. But um, you know, because group projects are those things where some people take over and do all of it, and others aren't as involved. But I think it gives them opportunity that they have to do the research on what they're doing. They have to come up with solutions, then they have to present it, and we critique it, and the whole class critiques each other's group projects, and they are allowed to go back and change things to make it better, and then they do a final presentation. They're doing presentations throughout and being allowed to make corrections and stuff and listen to everyone. Not just me.”
	Move/Do	The physical movement associated with some active learning techniques.	“I use movement implementation, where students go to a specific portion of the room based on the answer they choose during quizzes and group solving scenarios.”
Barriers	Technology	Ways that technology impedes the use of active learning.	“I’ve caught them doing homework from another class when they’re supposed to be doing like they’re supposed to be collaborating with the small group on xyz and the table is really quiet. So I’ll walk up and be like ‘Guys, what’s up? What are you doing there?’ Well if it isn’t graded like if this is what we’re working on in the classroom at that time and it isn't graded, they’re doing homework for another class, unless I am standing there looking at them.”

	Students	The manner in which students' knowledge and perceptions impede the use of active learning.	"The (student) emphasis on grades and kind of the end product can be a barrier to active learning." "I think personalities can sometimes drive it. We have a wide mix of students, you know in one of our courses, you know I've got some juniors and then we've got some middle college kids. You get a sixteen or seventeen year old middle college student who is absolutely petrified to stand up in front of a twenty-one or twenty- two year old."
	Resources	Financial and infrastructure that hinder the use of active learning.	"Offer more hours in internship experiences by paying them, if we could, if we could, offer some sort of stipend for their internship, to recognize the value of their time and also to recognize that we're very aware that that takes away from the time that they're able to work at their jobs."
	Content	The course material can control how much active learning is used in the classroom.	"I think that the more science-dense courses are a little bit more difficult to um, to do that with, to do active learning. There are ways but I do a lot more lecture in something like biomechanics than I do in strength and conditioning."
	Faculty	Perceptions of faculty about new pedagogical approaches can obstruct the incorporation of active learning in the classroom.	"As a as a newer faculty (negative faculty comments) can sometimes be discouraging. But um taking that with a grain of salt and and using that as you know, cautionary tale, and then applying it to moving forward with a positive attitude and determination."
	Time	The dedication of time by faculty can hinder the use of active learning in the classroom.	"I hold myself back by not taking the time to learn more tech savvy tricks so that students could use more in my classroom."

Facilitators	Support	The campus culture and beliefs eases the incorporation of active learning.	“I feel very supported by my department chair. Um, the my fellow faculty and the department, definitely the Dean of the faculty. I think our support potentially lacks a little bit when it comes to budgeting. But from a personal level I’ve felt supported all the way up to the President.”
	Student engagement	The degree to which students feel involved in the process encourages faculty to continue to pursue active learning strategies.	“the majority of the class is very engaged but it’s because it’s the subject that they see helping them in the future” “they have a lot of fun in there, you know, debating and all that.”
	Resources	Financial, human and technology capital that support the use of active learning in the classroom.	“But I mean the kids can learn to do podcast. We've got kids right now in class. One of them is doing a football podcast and but he's doing it from you know, his phone or his computer. And I’m thinking, wow, you can do it professionally in our Global Communication Center.”

APPENDIX G: RANKING TABLES

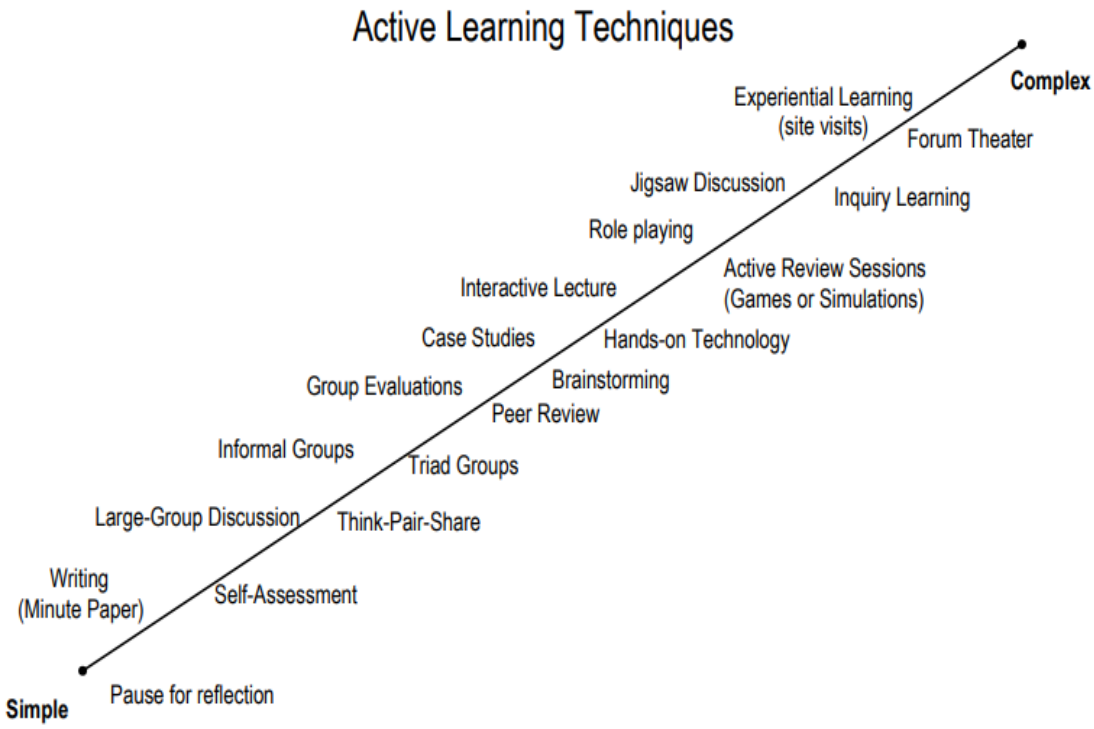
Participant ranking of teaching methods for frequency of use

Rank	Teaching method
2	Group or collaborative learning
3	Lecture (interactive with student engagement via clicker questions, quizzes, discussions
5	Lecture (didactic, teacher speaks with no interaction from students)
6	Videos in class
6	Problem solving (case studies, problem sets)
6	Games or activities (think-pair-share, one minute paper, classroom assessment activities, etc.)
6	Flipped classroom (view lecture or readings prior to class and use class time for activities)
7	Reading the text, notes or journals while in class
7	Online learning (course is taught online and not in person; synchronous or asynchronous)
8	Digital technology

Participant ranking of teaching methods for effectiveness

Rank	Teaching method
1	Group or collaborative learning
2	Problem solving (case studies, problem sets)
3	Lecture (interactive with student engagement via clicker questions, quizzes, discussions
4	Flipped classroom (view lecture or readings prior to class and use class time for activities)
5	Games or activities (think-pair-share, one minute paper, classroom assessment activities, etc.)
5	Videos in class
7	Digital technology
7	Reading the text, notes or journals while in class
8	Lecture (didactic, teacher speaks with no interaction from students)
9	Online learning (course is taught online and not in person; synchronous or asynchronous)

APPENDIX H: ACTIVE LEARNING CONTINUUM AND LIST OF IDEAS



This spectrum arranges active learning techniques by complexity and classroom time commitment.

Prepared by Chris O'Neal and Tershia Pinder-Grover, Center for Research on Learning and Teaching, University of Michigan

How can you incorporate active learning into your classroom?

The following list summarizes some of the many approaches.

- **Clarification Pauses**: This simple technique fosters "active listening." Throughout a lecture, particularly after stating an important point or defining a key concept, stop presenting and allow students time to think about the information. After waiting, ask if anyone needs to have anything clarified. Ask students to review their notes and ask questions about what they've written so far.
- **Writing Activities such as the "Minute Paper"**: At an appropriate point in the lecture, ask the students to take out a blank sheet of paper. Then, state the topic or question you want students to address. For example, "*Today, we discussed emancipation and equal rights. List as many key events and figures as you can remember. You have two minutes – go!*"
- **Self-Assessment**: Students receive a quiz (typically ungraded) or a checklist of ideas to determine their understanding of the subject. Concept inventories or similar tools may be used at the beginning of a semester or the chapter to help students identify misconceptions.
- **Large-Group Discussion**: Students discuss a topic in class based on a reading, video, or problem. The instructor may prepare a list of questions to facilitate the discussion.
- **Think-Pair-Share**: Have students work individually on a problem or reflect on a passage. Students then compare their responses with a partner and synthesize a joint solution to share with the entire class.
- **Cooperative Groups in Class (Informal Groups, Triad Groups, etc.)**: Pose a question for each cooperative group while you circulate around the room answering questions, asking further questions, and keeping the groups on task. After allowing time for group discussion, ask students to share their discussion points with the rest of the class.
- **Peer Review**: Students are asked to complete an individual homework assignment or short paper. On the day the assignment is due, students submit one copy to the instructor to be graded and one copy to their partner. Each student then takes their partner's work and, depending on the nature of the assignment, gives critical feedback, and corrects mistakes in content and/or grammar.
- **Group Evaluations**: Similar to peer review, students may evaluate group presentations or documents to assess the quality of the content and delivery of information.
- **Brainstorming**: Introduce a topic or problem and then ask for student input. Give students a minute to write down their ideas, and then record them on the board. An example for an introductory political science class would be, "*As a member of the minority in Congress, what options are available to you to block a piece of legislation?*"
- **Case Studies**: Use real-life stories that describe what happened to a community, family, school, industry, or individual to prompt students to integrate their classroom knowledge with their knowledge of real-world situations, actions, and consequences.
- **Hands-on Technology**: Students use technology such as simulation programs to get a deeper understanding of course concepts. For instance, students might use simulation software to design a simple device or use a statistical package for regression analysis.
- **Interactive Lecture**: Instructor breaks up the lecture at least once per class for an activity that lets all students work directly with the material. Students might observe and interpret features of images, interpret graphs, make calculation and estimates, etc.
- **Active Review Sessions (Games or Simulations)**: The instructor poses questions and the students work on them in groups or individually. Students are asked to show their responses to the class and discuss any differences.
- **Role Playing**: Here students are asked to "act out" a part or a position to get a better idea of the concepts and theories being discussed. Role-playing exercises can range from the simple to the complex.
- **Jigsaw Discussion**: In this technique, a general topic is divided into smaller, interrelated pieces (e.g., a puzzle is divided into pieces). Each member of a team is assigned to read and become an expert on a different topic. After each person has become an expert on their piece of the puzzle, they teach the other team members about that puzzle piece. Finally, after each person has finished teaching, the puzzle has been reassembled, and everyone on the team knows something important about every piece of the puzzle.
- **Inquiry Learning**: Students use an investigative process to discover concepts for themselves. After the instructor identifies an idea or concept for mastery, a question is posed that asks students to make observations, pose hypotheses, and speculate on conclusions. Then students share their thoughts and tie the activity back to the main idea/concept.
- **Forum Theater**: Use theater to depict a situation and then have students enter into the sketch to act out possible solutions. Students watching a sketch on dysfunctional teams, might brainstorm possible suggestions for how to improve the team environment. Ask for volunteers to act out the updated scene.
- **Experiential Learning**: Plan site visits that allow students to see and experience applications of theories and concepts discussed in the class.

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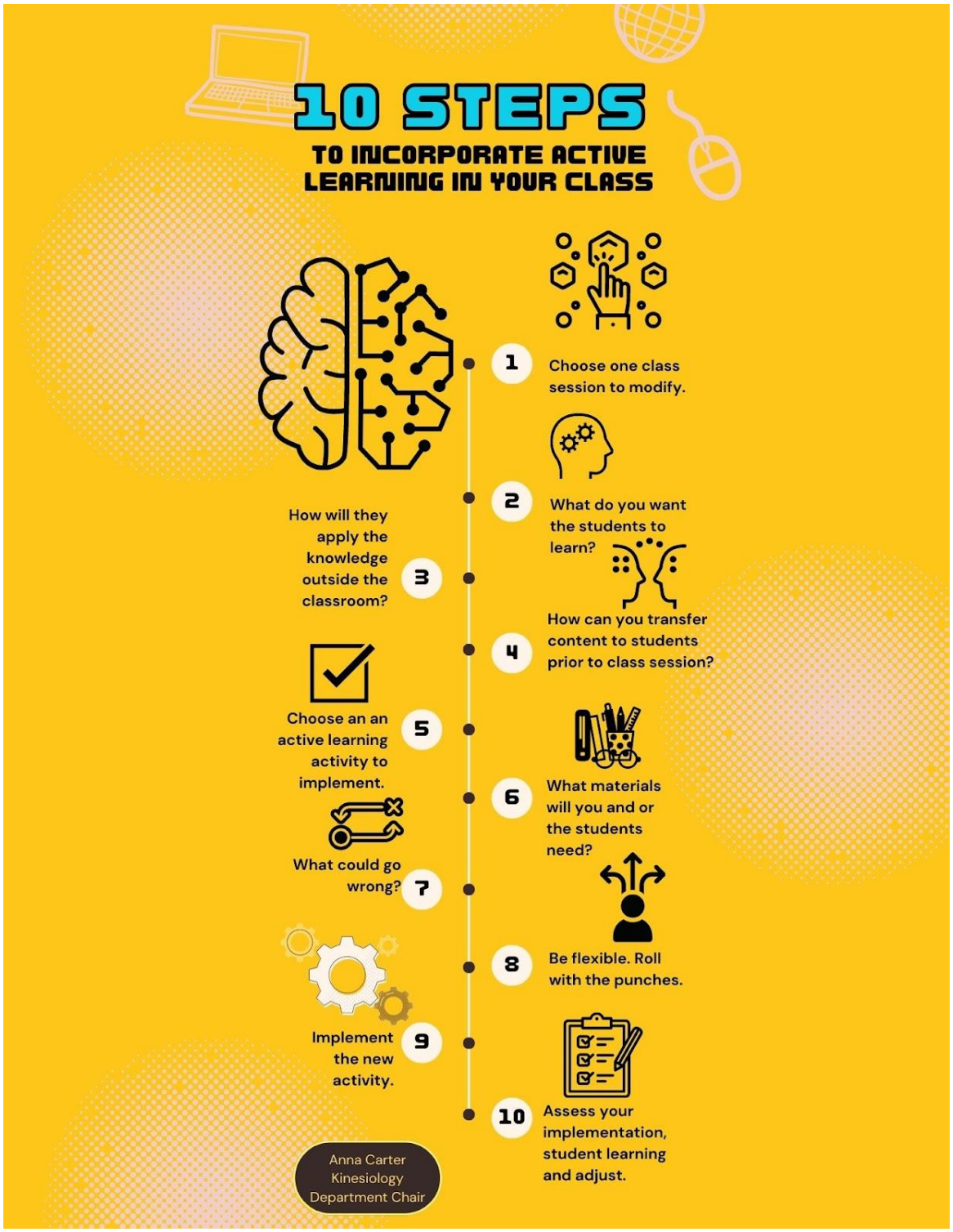
APPENDIX I: INFOGRAPHIC FOR KINESIOLOGY DEPARTMENT DISSEMINATION



APPENDIX J: OBSERVATION FORM TEMPLATE

Kinesiology Faculty Observation Guide
(to be finalized with faculty input)

This form serves as a guide to your observation session. The form is only shared between the faculty members involved in the observation session unless the instructor observed chooses to share it otherwise. The goal of this process is to share teaching methods and inspire new techniques in our department so that our students are best prepared as they enter the kinesiology field.

Semester/Year	
Date/Time	
Instructor you observed	
Course	
Your name	

Why did you choose to observe this class session?	

What did you observe and what feedback would you provide based on your observation?	

Notes about what you will replicate or how this observation will help you in your teaching.	