The Post Pandemic Learner: How Spatial Dynamics & Accessibility Impact the Learning Experience

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THE POST-PANDEMIC LEARNER: HOW SPATIAL DYNAMICS & ACCESSIBILITY IMPACT THE LEARNING EXPERIENCE

A Thesis Presented to
The Graduate School of Clemson University

In Partial Fulfillment
of the Requirements for the
Degree Master of Arts Communication

by
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ABSTRACT

The COVID-19 pandemic had unprecedented impacts on Generation Z (Gen Z) in regard to mental wellbeing and learning impacts. While the world shut down in March 2020, the majority of students who have since entered college were forced to attend some portion of high school using remote learning platforms. This transition, while necessary at the time, has had repercussions that are still being felt in higher education. These impacts, combined with the challenges that Gen Z were already experiencing due to the pressures of social media, and the impacts that technology has had on attention spans, have changed their learning styles and needs. While previous research supports the idea that post-pandemic learners want to be seen holistically, seek flexibility and compassion in the classroom, this thesis sought to explore the impacts that the spatial dynamics and accessibility of a classroom have on the student experience. Drawing from the framework of Henri Lefebvre (1991, 2011) and Raka Shome (2003) on the production of space and accessibility, a qualitative analysis was conducted using focus groups to better understand the post-pandemic learning experience. Through the findings three major takeaways were identified, including; the importance of flexibility in the classroom, the expectation of accessibility, and most unexpectedly how the learning habits of the post-pandemic student have changed. The findings of this study can be used by educators and administrators to continue to support and empower post-pandemic learners.
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CHAPTER 1

INTRODUCTION

As the world continues to adapt to life post COVID-19, the long-term impacts of the pandemic continue to be highlighted across industries. While the health, financial, social, and technological impacts of the pandemic have been frequently discussed in the media, this thesis will focus on the impacts to higher education, which has been referred to as the “worst learning crisis in a century” (Asadullah et al., 2023). Not only are we now seeing the impacts on learning loss, but also on the mental wellbeing of students. In a study conducted in 2020 during the height of the pandemic, in the Connecticut, New Jersey and New York area, results showed just how severe the impacts on mental health were, with 76% of participants reporting more anxiety, 74% more depressed, and 65% reporting uncontrollable worry (Reyes et al., 2022). Pre and post pandemic students had to make hard choices between their personal lives and their education, which were often at odds with each other (Hews et al., 2022). It’s important to highlight that these conflicts did not disappear once everyone returned to in-person classrooms. The post-pandemic learner has new priorities, wanting or even demanding flexibility and autonomy over their education.

The new generation of learners had to adapt to online learning and the fallout of what has been coined “zoom fatigue.” This unique experience has also impacted what students value from their instructors, putting more importance on compassion and understanding (Hews et al., 2022). Referred to as “pandemic pedagogy,” instructors strive to uphold their curriculum while balancing their “ethic of care,” described by Gilligan (1982) as “tailoring ethical responses and moral action based on the holistic view of the person, through the lens of their unique lived experiences” (Gilligan, 1982; Sellnow, 2022, p. 158). Now that students are back in the
classroom and demanding a new level of attention, it’s more important than ever before to research what factors impact the learning experience for both the students and the instructors, specifically in a higher education context. The incoming students, beginning with the fall 2020 admittance, have different needs and styles of learning that must be addressed, expecting to be seen holistically inside and outside of the classroom. Students expect qualities such as flexibility, self efficacy, sense of belonging, teacher care/enthusiasm, and digital competencies (Hews et al., 2022). While online learning shifted the expectations that students have, it also gave a new perspective on the spatial dynamics of the classroom. There are lessons to be learned from the use of the online classroom, and how successful instructors engaged students using the space of the online classroom by using features such as breakout rooms, chat functions, and strategies such as animating, replicating, reciprocating, and self monitoring (McArthur, 2022; Pursell & Iiyoshi, 2021). Instructors can bring these active learning and engagement strategies into the classroom to further accommodate students.

The traditional classroom has been undergoing a transformation and COVID-19 proved to reinforce the idea that this generation of students want and need a different learning environment. Park & Choi (2014) discuss the history of the traditional classroom, referencing how size is the only element changed, dating back to medieval times before the implementation of active learning classrooms. When you enter a traditional lecture hall, there are very clear power dynamics encouraged from the space and setup of the room. The seating is often stationary and tiered, bolted into the floor leaving very little room for manipulation or collaboration. The instructor is the expert, performing and lecturing at the front of the room, the spectator is automatically drawn to their presence, whether it be because the furniture commands it or because it is second nature to look forward at a stage. The obvious separation from the
students gives the instructor, whether intentional or not, a very clear message of authority in the traditional classroom setting. To accommodate the new learner who seeks to be seen holistically, active learning and hybrid classrooms are becoming the new ideal across campuses. Research points to the success of active learning classrooms compared to traditional lecture halls, showing higher success rates in outcomes, engagement, and enrollment (Park, & Choi, 2014; Ralph et al., 2022). The “student-first” mentality can have lasting impacts on experience, learning outcomes, admission, and retention which is a priority for administrators. Instructors can bring these active learning and engagement strategies into the classroom to further accommodate students.

While power dynamics in a classroom are inherent, it would be negligent for universities to ignore the shift in the learning style of Generation Z (Gen Z), defined as those born after 1997 (Dimock, 2019). Social media has not only broken down barriers but also given this generation a think-tank of like minded learners at their fingertips. Social media and other technologies have also lowered attention spans and added new obstacles for learning, including a decrease in communication skills and a difficult time dealing with conflict (Chicca & Shellenbarger, 2018; Gould et al., 2020). Instructors need to be cognizant of the learning experience that their students desire and thrive under. The same goes for technologies: while technology provides the opportunity to continue learning even during a global pandemic, it also leaves room for mistakes to be made and in some cases the technology can even impede learning (Pursell & Iiyoshi, 2021). There is a very fine balance when it comes to creating an active and hybrid learning environment and keeping the student experience top-of-mind.

It’s clear from prior research that Gen Z was already suffering from attention issues due to social media and other technologies that have since been exacerbated by the pandemic. As more research is shared regarding the impacts of COVID-19, the question remains as to what
impacts student perceptions of their learning experience. This thesis will explore the impacts that the spatial dynamics and accessibility of a classroom have on the student experience. Drawing from the work of Henri Lefebvre (1991, 2011) and Raka Shome (2003) the classroom is understood here through vectors, created by the intersection of power, knowledge, education, and social relationships. These elements combined create the spatial dynamics of the classroom, but they are not dependent on each other, they are fluid and open to change. A qualitative study using focus groups and self reported outcomes was conducted to better understand the post-pandemic student experience. The following questions framed the study:

**Research Questions**

1. How does the post pandemic learner describe the impact of the architecture and layout of the classroom on their learning experience?

2. What expectations do post-pandemic learners have about accessibility in the educational context?
CHAPTER II
REVIEW OF LITERATURE

Spatial Framing in the Classroom

To begin to answer the questions at hand, one must first consider the question of what space actually is and how it is framed not only in the classroom, but in society as a whole. In order to do so, we’ll turn to the work of Henri Lefebvre. Lefebvre (1991) conceptualizes that, “space is not a thing (p. 73) and not a container (p. 94). It is a product and means of production (p. 85; Fuchs, 2019).” Lefebvre (1991) asserts that space is created not only by the people that occupy the space, but by the power and economic systems in place within each social system. The people that occupy the space also bring with them their own ideas, rhythms, experiences and expectations of a classroom. They have a pre-existing set of values and ideas that were shaped broadly, from their caregivers and learning experiences to the media that they consumed, creating their own vision of what the classroom is supposed to be and do. Their vision may not be all encompassing which adds a challenge when trying to disrupt learning and incorporate active learning. Students may not understand what active learning actually is, without having experienced it firsthand, creating an opportunity to transform the space in new and collaborative ways. This thesis looks critically at who produces space in the higher education classroom and how it impacts the student experience.

The classroom is looked at broadly: spanning from traditional lecture halls that hold 100 or more students, traditional sized classrooms that hold 25 - 35 students, smaller seminar rooms of 15-20 students, active learning classrooms with movable furniture, hybrid classrooms built to conduct online classes, asynchronous classrooms and other modalities that may arise. Each classroom brings with it a distinct architectural and spatial setup. Traditional lecture halls
oftentimes have tiered and bolted seating, with the instructor at the front of the room like a stage. Traditional mid-sized classrooms can vary, with most older classrooms not having as much flexibility. The rows of desks fill the room in a much more intimate level, holding 25-30 students as opposed to that of a lecture hall. The common factor is typically a board or projector with the podium at the front of the room where the instructor teaches and draws the attention to the front. Active learning and hybrid classrooms created for 25-30 students employ more flexibility, offering movable desks and chairs with focus on newer technologies. Hybrid classrooms are ideal for both synchronous and online learning, striving to create options for both online and in-person learning. Hybrid classrooms are equipped with cameras and the technology to accommodate online classroom access. The online classroom most frequently taking place on the Zoom platform, the “Zoom” room,” happens solely online, utilizing the features of the platform like chat and video functionalities. There are other modalities as well that may not be the focus of this paper, but warrant a mention. Asynchronous learning creates space for the learner to complete the course on their own time and pace and can happen in different modalities. At Clemson University this typically takes place using the learning management system (LMS) Canvas. There are also instances when instructors utilize a hybrid course using both synchronous and asynchronous methods.

Henri Lefebvre (1991) classifies the education system as an institution, referring to it as a “large scale social system” which can contain many social systems within them” (Fuchs, 2019, p. 143). The classroom is therefore just one of those social systems within the institution. While the physical location of the classroom space is stable, the classroom itself is not static or fixed; instead it fluctuates as it is shaped by its occupants and by institutional politics. Classrooms shift and change depending on what class is being taught, what instructor is teaching, what students
attend class, what energy enters the room, and what is happening in the world. Drawing from Lefebvre’s (1991) work, Fuchs (2019) says that “space is a bounded collection of many subjects, objects and their relations (p. 143).” There is a tension in the classroom between stasis and movement, closed and open possibilities, inclusivity and exclusivity that creates a dialectic write around what factors impact the student experience and how the physical space can either add value or be a constraint. Lefebvre also alludes to the tension between time and space in his essay *Rhythmanalysis* (2013), studying how time is organized in space, stating that “everywhere where there is interaction between a place, a time and an expenditure of energy, there is rhythm (p.27).” Lefebvre states, “rhythm appears as regulated time, governed by rational laws, but in contact with what is least rational in human beings: the lived, the carnal, the body (p. 21).” Considering the human beings that enter a room and the rhythm and experiences that they bring with them, it’s important to understand post-pandemic learners as they directly impact the rhythm of the class, the semester, and the course.

How is the rhythm of the classroom created? A classroom has a set schedule dictated in many cases by a syllabus that is approved by the administration. There is a rhythm to each week, attending the same classes in the same order and a rhythm to the class period including a beginning, middle, and end, created by the lesson plan. The days and times that lessons are taught and tested are carefully determined by the schedule and the rhythm of the semester. This rhythm creates an internal memory, down to the seat that a student chooses to sit in over and over again. What happens if the space doesn’t allow the student a choice of where to sit based on accessibility, which in turn impacts their learning experience? Or if the space only allows a certain number of seats towards the front, making it harder for some students to focus? This
impact is not singular, it is nuanced and created from the very top down, made from decisions that span many vectors.

To frame this thesis, the subjects, objects, and relations will be referred to as vectors and will include, power, knowledge, education, accessibility, and social relationships (Fuchs, 2019). Power is defined as the authority behind the curriculum decisions and the distribution of resources. This could include federal and state level directives, administrative decisions specific to each campus, and decisions made by course directors or professors. Knowledge is framed as a commodity that is transferred in the classroom. Knowledge is earned through degrees such as a PHD or through a variety of tests to measure knowledge. Students demonstrate knowledge to be accepted into the institution and professors are expected to distribute their knowledge. Education is concerned with how the modality and student experience impacts the learning experience and exchange of knowledge. It refers to the entire educational experience in and out of the classroom. Accessibility is focused on who belongs in the classroom, both physically and intellectually. How was the space built to accommodate those with invisible or visible disabilities? Social relationships are concerned with how the space contributes to learning through social relationships and examines how the relationship between students and instructors are impacted by the spatial dynamics of the classroom.

The classroom will be framed as an articulation or intersection of the aforementioned vectors (Slack & Wise, 2017). The classroom is where all of the vectors intersect and are put into action. It is created not only by the students and instructors, but by the administrators, politics, and curriculum decisions at varying levels of transparency and accessibility. The classroom is contingent, meaning that these vectors aren’t dependent on each other, and could connect in different ways, opening up the possibility of change in the classroom (Hall, 1990; Slack & Wise,
There is nothing static in the classroom, students come and go each semester, instructors change their teaching styles, technologies change, and classrooms adapt, sometimes faster or slower than they should. The classroom is made up of all of the elements and independent of the changes that happen, they come together to create the space. As the new generation of learners have adapted to COVID-19 learning challenges, they have made it clear that they desire a new experience in the classroom, one that views them holistically and values flexibility, putting the “ethic of care” top-of-mind (Gilligan, 1982; Sellnow, 2022). They are more aware of the power dynamics and decisions that impact their learning experience and futures and they aren’t afraid to share their concerns. The question at hand becomes, what impact do traditional lecture halls and classrooms have on the student experience as opposed to active learning and hybrid classrooms?

The sudden shift to online learning during the COVID-19 pandemic, created both a challenge and a learning opportunity for administrators and instructors as they scrambled to implement both online and fully asynchronous learning modules. The online learning modules had to accommodate students in the same way that in-person learning did, if not more. Students wanted to feel seen, heard and comfortable in this new environment, since it’s so easy to get lost in the “Zoom” room. Research found many suggestions for instructors to implement into their online learning pedagogy, including a focus on “animating, replicating, reciprocating and self monitoring” while in the Zoom and hybrid classroom (McArthur, 2022). Another recommendation was to explore new ways to use the technology such as the chat function, interactive quizzes and focusing on teaching presence to engage the students (Hassoun, 2015.; Murphy, 2022; Pursell & Iiyoshi, 2021). Beyond logistics, it became clear that students want flexibility, especially students who identify with invisible or visible disabilities. A study published in 2022 interviewed 16 students who identified as disabled about their experience
switching to virtual or hybrid learning during COVID-19 (Parsloe & Smith, 2022). Results showed how beneficial and advantageous virtual learning environments can be for students with disabilities. Virtual options eliminated the need for those with physical disabilities to navigate potentially inaccessible spaces, opened up “judgment” free space for students to take breaks, stretch, and take care of their personal needs. Although these seem like basic needs, many times students with disabilities do not get the accommodations that they need for fear of being judged (Parsloe & Smith, 2022). These lessons should be taken into consideration when creating future learning spaces.

The first step in creating a “judgment free” space and putting these lessons into place is to look at the work of Raka Shome (2003) who adds to the conversation on power and spatial dynamics, calling for critical communication scholars to recognize how spatial dynamics influence and impact identity and communication. Similar to Lefebvre, Shome points to space as being fluid, made of both connections and disconnections. Shome’s framework supports the concept of a classroom as the intersection of the vectors: power, knowledge, education, accessibility, and social relationships. Through this framework the context or the spatial dynamics becomes top-of-mind, further supporting the argument that the classroom should be evaluated holistically. From this perspective, the question arises as to how the space decides who is welcome or “belongs” in the university classroom, the accessibility. What external and internal factors determine who gets the privilege of an education? Traditionally, there is some kind of exchange of money or commodity exchanged in order to be accepted in the classroom, whether that be paying tuition, taking out student loans, accepting an assistantship or receiving a scholarship. There is also an aspect of having to “earn your place,” through grades or testing scores, using knowledge as a commodity. Students who are more privileged typically attend
well-funded or private schools, which gives them the resources and access not only to attend their chosen school, but to excel once there. No matter the spatial dynamics of the classroom, there is some kind of exchange of commodities, which could include the professor’s knowledge, and in return students are expected to give full trust, respect and acceptance of that relationship. Once in the classroom, the power dynamics are fueled by intellectual power and the exchange of knowledge and ideas.

As the new generation of students challenge these power dynamics by demanding to be seen comprehensively, considering how the context of the classroom has changed is important when observing student outcomes and experiences. Shome (2003) points to accessibility and mobility as a key constraint of spatial politics and the importance of looking at mobility and physical accessibility. Was the traditional lecture hall meant to be accessible to those with physical or mental disabilities? While dependent on the space, oftentimes a student entering in a wheelchair or with other physical constraints has to enter at the back of the room, if accessible, and be confined to that space. The student may have to sit in a secluded corner, setting them apart from their peers. They may experience a sense of “otherness” or (mis)fitting created by the politics of the classroom (Parsloe & Smith, 2022; Shome, 2003). This identity of “other” is created by the space and the space is created by politics, an example of how space and identity are articulated in the classroom and both connected and disconnected. This suggests that if the politics change, if the people in power begin to make changes, the spatial dynamics of the classroom can change to accommodate everyone. This has been shown with the change to active and hybrid classrooms and the use of technologies and online classrooms. During the COVID-19 pandemic the use of online classrooms became necessary, forcing administrations to set new boundaries and regulations around the spatial boundaries of the classroom. COVID-19 caused a
significant shift to virtual learning, and now those users/students are changing the spatial boundaries of the in-person classroom experience. In response to these concerns, some educators and instructors have turned to Universal Design (UD), founded by Ronald L. Mace, at the University of North Carolina in 1989. While UD originated in the architecture field, instructors have adapted them for curriculum and the learning environment with a focus on the why, what and how of learning (Ehlinger & Ropers, 2020; Salmen, 2011; The UDL Principles, 2023). Seven principles were proposed and guide UD: equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance for error, low physical effort, and size and space for approach and use (Universal Design Principles, 2019). The focus of UD is to create environments and experiences that are accessible to everyone, which can be useful in response to accessibility concerns in the classroom (Ehlinger & Ropers, 2020; Salmen, 2011; The UDL Principles, 2023).

In order to consider and modify spaces for the post-pandemic learner, it’s important to understand their experience. While the student experience is deeply personal, here it will be framed hypothetically through imagined but realistic projections of a student’s experience drawing on Lefebvre and the vectors identified earlier; power, knowledge, education, accessibility, and social relationships. Henry is a white, male identifying, able bodied freshman engineering major at Clemson University from New York. He attended one of the best preparatory schools in New York, scored very highly on entrance exams like the SAT, earned high marks, and was actively involved in school. The intersection of power, knowledge, education, accessibility and social relationships created the opportunity for Henry to have practically unlimited options when it came to choosing a university. As part of the general education requirement, Henry is required to take the basic communication course, COMM 1500.
Henry isn’t worried or nervous about public speaking, since he had a lot of practice in high school, although he does have a hard time concentrating if he isn’t actively engaged and he doesn’t have much experience in a large lecture class. Henry is surprised when he enters the traditional lecture style classroom at the back of the room with tiered rows and bolted desks and chairs, as he was familiar with traditional 25 person classrooms in high school. The professor sits behind a desk at the front of the room, fully on display. The first day is always full of pressure to choose the right seat, because people rarely move once they have settled in throughout the semester, so Henry is assessing his options. He can sit towards the back, but he thinks that may stigmatize him as a less serious student. The front feels like it would be too much pressure, especially if he has trouble concentrating and begins fidgeting. While he is deep in thought, assessing his seating options, he glances back to the front of the room and the professor gives him a warm smile. This immediately sets Henry at ease, and he chooses a seat in the middle of the lecture hall. He sees some students that he met at orientation and they sit near him, creating a safe space to begin the semester.

Zoe is a white, female identifying, disabled, freshman business major at Clemson University from South Carolina. Zoe has diplegic spastic cerebral palsy, which impacts her lower extremeties. She uses a cane at home, and a wheelchair while navigating the campus terrain. She attended public school, was an honors student and was involved in many extracurricular activities. Clemson was her top choice and she was elated when she was accepted. Zoe is very nervous about the first day of COMM 1500, especially not knowing where she will be able to sit. She knows that it is a large format lecture class and this has added to her nervousness. Zoe waits patiently for the lecture doors to open and the class prior to spill out. Once the doors are clear she enters at the back of the classroom. From this entrance, in her wheelchair, she has very limited
options of where to sit, she is constrained to the back of the class. She looks down the rows of bolted desks and tiered seating and spots the professor at the front of the room. The professor gives her a warm smile and walks up the rows to meet her. She introduces herself to the professor and the professor explains that there is another entrance at the front of the room if that would make her feel more comfortable. The professor offers to walk around and bring Zoe to the other entrance. While Zoe appreciates the professor's kindness and accommodations, she feels pressured to make a decision. If she chooses to sit in the front, she feels like extra attention will be on her, and if she chooses to stay in the back she worries she won’t be as actively involved in the lecture or judged by the professor. Either way, she feels a sense of “otherness” in the classroom (Shome, 2003). Like Henry, Zoe also sees friends she met at orientation, but she feels bad asking them to sit in either the front or back of the room. She decides to try the front of the room, so she has a better chance of being active in the class and seeing the projector screen. The professor explains that sometimes the front entrance is locked, and she will do her best to prop it open for her. Zoe nods and settles into her seat at the front of the room, feeling a bit uneasy as she begins her semester.

While these are hypothetical scenarios, they paint a picture of how the spatial dynamics of the classroom can impact the student experience. Henry and Zoe had very different experiences in the same exact classroom, especially in regard to accessibility. Accessibility doesn’t just exist on its own, it’s directly related to power. Calling on Lefebvre (2003), decisions were made in regard to power structures that helped to create the space. The space is a collection of many vectors, which impact each person in their own unique way. The rhythm of the classroom exists down to the seemingly monotonous task of choosing a seat the first day of class, which is nuanced (Lefebvre, 2013). Henry and Zoe grew up in very different demographics, and
both ended up at Clemson University, demonstrating their knowledge. Power, knowledge, education, accessibility, and social relationships manifested in different ways for each student and once in the classroom they continue to play a very important role.

**The Post-Pandemic Learner**

Generation Z (Gen Z), widely defined as anyone born after 1997 (Dimock, 2019), are generally understood as “tech-savvy, pragmatic, open-minded, individualistic but also socially responsible” (Merriam-Webster). It’s important to note that Gen Z are considered the first digital natives, having devices accessible their entire lifetime. Chicca & Shellenbarger (2018) identified nine characteristics on Gen Z which include: “high consumers of technology and cravers of the digital world; individualistic; underdeveloped social and relationship skills; increased risk for mental health concerns such as isolation, anxiety, insecurity, and depression; lack of attention span, desiring convenience and immediacy; pragmatic; cautious and concerned with emotional, physical and financial safety; sedentary activism and open minded, diverse and comfortable with differences.” These findings have significant implications on the classroom experience and environment that educators need to take seriously. Gen Z has a completely different learning style impacted largely by their exposure to technology from birth. This factor, combined with the mental health impacts that they are facing, call for a holistic approach to learning.

After COVID-19 impacted schools across the world, we are now seeing the detrimental impacts that the isolation and uncertainty had on school-aged children, including college students, in regards to their mental health. Results of studies conducted during the height of the pandemic show just how severe the impacts on mental health were: the social isolation, loss of academic resources, and distractions that come from being at home caused a significant source of stress for students, with one in five students reporting their mental health had significantly
worsened (Liu et al., 2022; Reyes et al., 2022). The mental health crisis has impacted learning outcomes and many other factors in the education space, creating both a mental health crisis and a learning crisis (Asadullah et al., 2023). Students were faced with making choices between personal needs and educational needs, and often the personal needs had to take precedence over their education (Hews et al., 2022). Marginalized populations, specifically those with disabilities or who are caretakers, can experience higher rates of major depressive disorder (MDD) or generalized anxiety disorder (GAD) (Soria, & Horgos, 2021). To accommodate this, student needs have to be considered in the classroom. In a study focused on post-pandemic student engagement, researchers identified the most important instructional qualities for students as flexibility, self efficacy, sense of belonging, teacher care and enthusiasm and digital competencies (Hews et al., 2022). The bottom-line is that students want flexibility and they no longer feel the need to choose between their personal and educational life. They are demanding that the flexibility that was offered during the pandemic become a standard. Prioritizing student health and needs is essential when looking towards the future of the classroom. Offering a supportive environment and looking at the student holistically is the bare minimum for this new generation of learners. While architecture is inherently inflexible, this paradox of flexibility that students are requiring begins to transform the social production of space in the classroom, as defined by Lefebvre (1991). New boundaries and standards push the limits in the classroom, opening up the possibility of transformation.

In order to look at the student holistically, administrators and educators need to recognize that learning is not linear and that there is a need to listen deeply to students both inside and outside of the classroom, practicing the “ethic of care” mentioned earlier, challenging educators to be mindful of the students' lived experiences both inside and outside of the classroom.
(Ashby-King, 2021; Hews et al., 2022; Sellnow, 2022). One solution that has become popular is the active learning classrooms (ALC). In this paper, ALC is defined as a collaborative and open work space that prioritizes movement and flexibility to promote autonomy over the space. ALC’s have been tested against traditional lecture halls and prove to have higher success rates in outcomes, engagement, and enrollment (Park, & Choi, 2014; Ralph et al., 2022). New classroom set-ups are being implemented across universities which prioritize the student first and level the playing field in many ways between the instructor and student. Students have indicated that they want to be in a collaborative and active learning environment (Hassoun, 2015; Sharma & Alvi 2021). The furniture, architecture, technology, and space will need to be considered strategically to consider the student and faculty needs (Castilla et al., 2017). Ralph et al. (2022), conducted a study of learning outcomes in a traditional classroom compared to an active learning space showing that learning outcomes were much higher in the active learning space. Research shows that the traditional classroom discriminates, based on space and student motivations. While post-pandemic research supports the need for ALC’s, the research has been happening long before the pandemic. In a study conducted in 2014 by Park & Choi, a traditional classroom was analyzed resulting in the identification of “dark zones” and “golden zones” in the traditional classroom. The “golden zones” were labeled as the preferred seats, giving students optimal facetime with instructors, better optics, and an improved understanding. This study highlighted how the space of the classroom can impact many different student outcomes. (Park, & Choi, 2014). The ALC classroom is designed to eliminate the “golden zones” to create a space that doesn’t discriminate. Students with higher grade point averages (GPA) have higher outcomes in the traditional classroom compared to those with lower GPAs, whereas active learning classrooms had consistent outcomes for everyone (Park, & Choi, 2014; Ralph et al., 2022).
Clemson University tested these concepts in 2018, introducing a new classroom setup in Cooper Library, Student-Centered Activities for Large Enrollment Undergraduate Programs (SCALE-UP). The room included 16 tables that seat nine, with each table including three interactive monitors, creating an innovative/active classroom. “A faculty member lectures for 20-25 minutes, and then the last half of the class consists of students working together in small groups mentored by the faculty member and three or four teaching assistants. This provides an effective format of delivery along with saving space and money” (“New scale-up classroom,” 2018, para. 3). The research is readily available proving the impacts of collaborative work spaces, but it’s also important to get information straight from the source: the students. Castilla et al. (2017), assessed thirty different university classrooms, focusing on what the students actually believe and want. They identified six themes that were noted directly by students: functionality and layout, cozy and pleasant, concentration and comfort, modern design, daylight, and outward facing and artificial lighting. Taking this into account and factoring in the post-pandemic need to be seen holistically supports the use of active classrooms and the spatial dynamics of the room.

The mental health and learning loss crisis caused by the pandemic is a disruptor for change in the classroom. Student’s needs have changed based on the pandemic, politics and technologies that have been introduced to their generation. They are very aware and sensitive to the concept of “other” and they are willing to fight back against it (Shome, 2003). University administrators and professors have the opportunity to learn from this generation and take action. The need for inclusion, understanding, and flexibility create space to introduce the active learning classroom on a larger scale and to begin making adjustments in the classroom. The macro decisions made at the national, state, and university level have great impacts in the classroom, and there is a need to filter this down. Rasmussen (2021) points out that an
educational space is not completed with the “erection of the building (p. 244),” it’s a “never ending process of exploration and adjustment (p. 244).” Considering the social production of space, it’s imperative to consider how the current social conditions have shifted and how they can be rearticulated to meet the needs of the current space. (Lefebvre, 1991; Shome, 2003).
CHAPTER III

METHOD

Framework and Recruitment

Qualitative research methods were utilized to best answer the research questions at hand by hearing from the people who live them, the post-pandemic learner, in their words. These students have unique experiences that were shaped by the impacts of COVID-19 and they deserve to be heard. Qualitative methods allowed for depth of detail and feedback while conducting focus groups, gaining a unique perspective straight from the source. Each student has their own complex story to tell, which is important to capture the true experience of the post-pandemic learner. The decision to use focus groups instead of interviews was made strategically to expand the breadth and utilize the limited time for the study to speak to as many students as possible. It has been found that just two eight person focus groups produce the results of ten individual interviews (Fern, 1982; Morgan, 1997). Focus groups also afforded the opportunity to speak with participants collectively, allowing for interaction and interplay amongst students.

“As Morgan and Kreuger (1993) note, the comparisons that participants make among each other’s experiences and opinions are a valuable source of insights into complex behaviors and motivations (Morgan, 1997).”

A survey or poll could not capture the nuanced thought process that a student goes through when, for example, choosing where to sit in a classroom. The classroom seemed like the natural place to focus, as it represents the intersection of so many vectors, representing both the macro (administrative) level and micro (instructor) level decisions that impact the student experience.
This thesis used an iterative approach to analyze the data collected from focus groups and self reported data (Srivastava & Hopwood, 2009, p. 77; Tracy, 2020). “Iteration is ‘not a repetitive mechanical task,’ but rather a reflexive process in which the researcher visits and revisits the data, connects them to emerging insights, and progressively refines his/her focus and understandings” (Srivastava & Hopwood, 2009, p. 77; Tracy, 2020). Drawing from the conceptual frameworks of Henri Lebefevre (1991, 2011) and Raka Shome (2003), questions, coding and analysis considered the classroom as an articulation created by the power structures of the university.

The study was conducted using focus groups and self reported outcomes of undergraduate students at Clemson University, a large southeastern research institution, during the Spring 2024 semester. After obtaining institutional review board (IRB) approval, recruitment for the focus groups started in early Spring 2024. Convenience sampling was the first measure, drawing from the COMM 1500 course roster and instructor access. Flyers were created and distributed to COMM 1500 instructors to share with their students. Students will receive credit from the established research points already required in COMM 1500. Students typically fulfill this requirement using SONA for survey research and students participating in these focus groups will receive the same credit. Snowball sampling was also utilized, encouraging students to share with their peers. To further engage students, light refreshments were provided during in-person focus groups.

Four focus groups were held over the course of two weeks. The first three focus groups were held in person on the Clemson University campus and consisted of 7-9 participants. The final focus group was held over Zoom and consisted of 4 participants. In total, 29 people participated in the focus groups. While 6-9 participants is described as the ideal number of
participants by Tracy (2020), the decision was made that the minimum participants required to run a focus group would be four. After completing the first three focus groups, themes were beginning to repeat and the point of saturation was hit, the fourth focus group repeated themes that were seen throughout. In advance of the focus group, participants completed a self-reported questionnaire, to gauge demographics and attitudes (Tracy, 2020). The questions asked in the focus group were semi-structured, in order to create space for conversation to flow freely. Questions were loosely structured around Universal Design concepts. See Appendix A for the questionnaire and Appendix B for the semi-structured questions. Focus groups were recorded using the Zoom platform and transcribed using both the Zoom software and edited manually. To maintain anonymity only voice recording was used, the camera function was “turned off.” While protecting anonymity was necessary it did create challenges when assigning participants pseudonyms, resulting in many unknown speakers in the transcription.

**Demographics**

The participants were 79.3% female identifying and 20.7% male identifying with the average age being 19. The majority of participants, 65.5% identified themselves as white, 20.3% as Black/African American, 13.79% Asian, 6.89% Hispanic/Latino, and 3.4% as American Indian or Alaskan Native. 65.5% of the participants were freshman, 24.1% sophomores and 10.3% juniors. Their majors expanded a wide range of disciplines, including Social Science, Business, and Natural Science encompassing a variety across campus and all participants have taken class in a large lecture hall. All participants experienced some kind of remote learning or disruption in high school or college due to COVID-19. The majority of students (68.9%) have experienced an online class format in college. While this sample skewed toward freshman, I consider it a strength of the dataset, offering direct insight into the impact of COVID-19 on the
transition to college. The typical freshman was ending their freshman year when they were forced to move to remote learning. This had a direct impact on learning loss, work-ethic and new covid induced expectations.

**Coding and Analysis**

Using the completed transcripts, conversation was coded for answer content as well as tone. All identifying features were de-identified and students are referred to using a pseudonym to protect their anonymity. The statements provided here have been edited from the verbatim transcripts for clarity and readability. There was an initial primary round of coding, during which common themes were identified. A second round of coding identified the primary themes and exemplars (Tracy, 2020). During the secondary round of coding some organic themes emerged, but as anticipated themes emerged around student experiences of space, the student learning experience, student and instructor relationships, and the impact that COVID-19 had on the learning experience.
CHAPTER IV
RESULTS

Themes

Four overarching themes were identified: impacts of COVID-19, classroom layout, learning environment, and communication. While some predicted themes were identified, there was also room for organic subthemes and conversations to emerge. The impacts of COVID-19 encompasses the experience that the student had during their schooling due to remote learning and how their experiences changed or shaped their transition into college. The classroom layout focuses on the student’s opinions and perceptions of the physical environment of the classroom and how that can lead to judgements in the classroom. The learning environment draws from themes in relation to learning style, impacts, and accessibility and how both the physical attributes of the classroom and instructor behaviors and traits can impact the learning experience. Communication gauges how students prefer to interact with their instructors both inside and outside of the classroom. Through these four themes a clear understanding of the post-pandemic learner and their preferences will be displayed.

COVID-19

Through conversations in the focus groups, a picture was painted of the shared experiences that the students had during their schooling due to remote learning and how their experiences changed or shaped their transition into college. An overwhelming majority of participants had a negative perception of their time spent learning remotely during the COVID-19 pandemic. There was a strong consensus that there was a disconnect between accountability and responsibility, causing students to lose their work ethic. Students echoed the following sentiments.
SPEAKER A: I feel like for me, personally, I lost all my work ethic...at my school, like your grade couldn't drop at all. It could only go up if you turn in assignments, literally nothing and nothing happened. So I literally did nothing and then it was time to go back to class and there were no attendance rules at all.

Speaker A’s experience with virtual learning meant that there were no consequences for incomplete or poorly completed work. So students were left to rely only on internal motivation without any external accountability. For many students, like Speaker X, this led to a diminished work ethic.

SPEAKER X: It made me a really lazy student having a bunch of online work. Virtual classes stuff like that, like there were even zoom calls that I accidentally fell asleep in because I was at home. And then there were also assignments where I just looked everything up and didn't really learn the content.

Another student echoed with:

UNKNOWN SPEAKER: I feel like it [virtual learning] kind of ruined my work ethic a little bit. Like I would turn on like my classes, whatever, kind of just like you could listen to a podcast, like, do whatever you wanted.

Some students had no assignments graded at all, with grades only able to improve, not go lower, along with very flexible and minimal attendance policies. With the focus of tests like the ACT and SAT out of the picture, a lot less pressure was put on students.

UNKNOWN SPEAKER: I feel like they like academically, they become more lenient on it. So we weren't as pushed because we reached a stage where SAT Scores and ACT scores no longer matter. So most of us were just like, yeah, we get a break.
This caused learning gaps and learning loss that were felt later on with a lack in general knowledge of foundational classes in both high school and college.

SPEAKER Y: Yeah, I would say that it really hurt my foundation classes, like I was taking pre-calculus and stuff like that at the time. So the following year, my senior year, it was difficult because I just didn't have the knowledge I needed for those harder classes.

The impacts of COVID-19 leniency and learning loss were described as having many consequences for students such as missing out on foundational coursework and not being challenged to learn important material.

Students expressed how they had to learn self-reliance and responsibility because of remote learning, some becoming responsible for teaching themselves. While widely seen as a disadvantage, some students felt that this better prepared them for the transition to college, teaching them how to be independent.

UNKNOWN SPEAKER: I think being remote taught me that I could really teach myself, maybe more dependent on myself, and I was more confident going into college, and I mean that if I felt like I wasn't being taught very well, I could look at the material myself.

The leniency experienced by most in high school was a stark contrast to the experience that they have endured in college. Overall being held accountable and monitored has been a hard transition for many students in the focus groups. Attendance policies seemed repressive and many students had to re-teach themselves how to be in a classroom from an academic and a social standpoint.
SPEAKER L: I feel like Covid messed me up socially like I've already been like an anti-social quiet kid. But then, like when Covid hit is kind of when you got used to not seeing people, you got used to not talking to anybody.

Overall transitioning back to in-person learning came with a learning curve in regard to policies and interpersonal relationships.

While the majority of people in the study were in high school during the start of the COVID-19 pandemic, other factors and perspectives were given by a participant that was in college at the time. This participant offered a unique perspective on the impacts that COVID-19 had broadly. Due to the impacts of COVID-19, this student had to drop out for a myriad of reasons, and is now back in attendance to finish their degree. While this is a unique experience to the focus group, I am sure it is not a unique experience for this demographic and this speaks to the emotional toll that the pandemic had.

Classroom Layout

The unwavering theme when discussing classroom layout in any respect was flexibility. Flexibility is defined as how easy the space is to manipulate or change. This conversation spanned flexibility of the furniture, the setup, the classroom, the technology and the configuration of the room. Many students expressed that they prefer a chair that moves or rolls, compared to a chair that is bolted into the ground or connected to the table. The ability to move gives them an avenue to release any nerves, tension or focus issues that they may experience in a class as demonstrated by the speakers highlighted below. Speaker I, D and S all prefer rolling chairs and flexible furniture for the reasons listed above.
SPEAKER I: To me it's really important, like if the classroom has a space for me and it has like a good rolling chair, I'm going to go to that class more like there's, it's less likely I skip, right?

SPEAKER D: I think also if you have flexible furniture that you can roll around in or do something, it helps if you're nervous, you can fidget, okay? And you can just relieve some stress.

SPEAKER S: I fidget a lot so I really like the roly chairs, it gives me something to do when I get distracted in class. I hate the seats in Kinard because they are so hard and have no cushion at all, and I am so uncomfortable. Tables like this and like nicer chairs make it nicer to learn.

Speaker S prefers a rolling chair and also considers the comfort of a chair, preferring a chair with some cushion, which makes for a nicer learning experience. Students also really like flexible tables and configurations of the classroom setup. The ability to work in groups or create a new setup is appealing to them as verbalized by Speaker Z, who considers the environment as part of the learning experience.

SPEAKER Z: I like it when the environment can change or like, I guess the environment is part of the learning, like when teachers move chairs and tables and stuff, because you know, there's something new. There's something fresh. There's something to engage with every day.

The ease to get up and move around comfortably also came up with the theme pointing to ease of use. How easy it is to exit, to move seats, or to work with others was a common theme and factor for students when discussing the classroom environment. Ease of use, comfort and aesthetics can be looked at similarly. All factors have an impact on the classroom environment. Aesthetics
includes the look, and feel of the space, the lighting and the atmosphere. The ability to have natural light and window access was an overall positive for students, they prefer buildings with access to natural light and the look and feel of the newer buildings, stated directly by the students below.

UNKNOWN SPEAKER: I kind of like, I actually, I do like a lot more of the modern [building] brighter, more windows, more light, where it's like, I said, a lot of the lecture halls are just very dim and gloomy and feel kind of old. Really good job of updating like some of the like. Obviously, the business buildings. Yeah, like the smaller classes on those. But I would really like to see like the lecture halls updated kind of more bright.

UNKNOWN SPEAKER: The newer buildings are probably my favorite, like, the inside lighting makes me feel like more, I guess, inviting to learn.

As seen from the speakers, they associate newer buildings as having better light, which created a more inviting learning environment.

Another factor about classroom setup that was discussed was the ability to see the material and the instructor. Many students prefer to have a direct line of sight to the instructor and/or the projector or learning material. This was a major subtheme that was discussed regarding classroom setup. Sounds also had an impact on the opinions of the classroom, the ability to hear the instructor is important. If a professor was not using a microphone in a large space, and it was hard to hear, students had a harder time learning and staying engaged in the class.

The factors mentioned above all take part into the very strategic decision process that most learners use when choosing where to sit in a classroom. It’s much more complex than first meets the eye, students have many factors that they weigh when choosing where to sit including
but not limited to: flexibility, ease of use, movement, closeness to exit, facetime with the instructor, ability to hear and to focus. While answers had the same undertones when discussing different types of classroom layouts, the majority of the conversation focused on where they choose to sit in a large lecture hall. This seemed to have the most complexity, while a smaller or active room mainly focused on the line of sight and classroom material, echoing what they discussed about large lecture halls. Students who choose to sit in the front had a few main reasons. A major reason being eyesight and accessibility to seeing and another reason being to minimize distractions in class. The front assures less computer screens in front of them and less barrier to the instructor and learning material as verbalized by the speakers below, they echo the sentiments of minimizing distractions with a preference on focus.

SPEAKER D: I sit in the front. I don't like to give myself any reason to be distracted. I like to get all the information.

UNKNOWN SPEAKER: I normally go towards the front, especially last year for geology, it was like new information. So I wanted to be able to focus on this and I would miss that in the back.

Speaker U prefers the front to use as a tool for his unmedicated attention deficit disorder. They are clear to specify that they do not have accommodations, and use this method to minimize distractions.

SPEAKER U: Front 2 rows. I have unmedicated ADHD, I don't have accommodations and stuff. So the more people that are, the more like laptops that just distract me, so I make sure nothing distracts me.

Other students choose to sit in the front to have facetime with the professor and strengthen their relationships. They assume that sitting in a front sends a clear message that they are a serious
student and there to learn. They also make judgments about the other students who sit in the front, assessing that they may be able to find common ground and support each other.

SPEAKER D: And I feel like this is being so typical, but I feel like a lot of people that know what they're doing or are learning a lot are sitting in the front. Okay, So I like to sit in the front to grasp. And if I don't catch something, if I can ask the person next to me to make sure that they might not know what's going on, and I do and vice versa. So we can just like, help each other.

The middle of the room was described as a more neutral position in a large lecture hall. The middle provides a safe distance from the professor to create some sense of anonymity but also close enough to engage when they choose. Some students felt that it gave them a chance to work on other schoolwork if they needed to and not to be called out.

SPEAKER A: More like middle front so that I can still focus on the instructor, but also if I need to get some work done for another class, I'm not like right in the front that they're going to like, call me out.

While the middle provides a sense of neutrality, the back provides the anonymity that many students seek. Reasons varied, with the majority of students seeking to have the freedom to work on other assignments. Some students felt that it was hard to learn in the large lecture hall so they would rather just review the material themselves after class, the back gave them that freedom to multitask, while others like to have the flexibility to study for exams happening later in the day. Speaker R, prefers the back so he can relax and then teach himself the material at home, he prefers this strategy for larger lecture seminars, feeling like he doesn’t learn well in that format.

SPEAKER R: Towards the back especially in a larger lecture hall. I don't feel like I'll learn better up front, especially like the larger lectures like when I have Chemistry. I don't
really feel like I learn a lot during the lecture. I'd rather just go back home, look at the material and apply it myself. So by sitting in back it's more relaxing. I think I know I can chill back in time back there, when I know I’m not learning as good as I could be.

Speaker I, like many of the participants, prefers the freedom that the back affords. They prefer the flexibility to prepare for other classes and strategize the decision by meeting with the instructor one-on-one in office hours if they need clarification on class material.

SPEAKER I: Yeah, I sit in the back. I like to be able to kind of do what I want. I mean, sometimes, like if the teacher's talking, it's better if I study for the exam in the next class. So I don't want to disrupt everyone else, so I kind of go towards the back end. If I ever really need help from the teacher, I can spend office hours and get some one on one for like 30 minutes and be fine.

Other reasons for choosing the back include the ease of exit, comfort and the ability to remain secluded, and not have to speak to anyone to keep more focused.

SPEAKER AA: I don't know. I just don't like to talk to people during the lectures. So I just kind of sit back there and focus and do my own thing.

In all styles of classrooms, the most common response was that they preferred to sit facing the instructor and the projector or board. They do not like having their back to the instructor and not being able to see the material. They make decisions a bit differently in this type of environment.

One organic subtheme that emerged was the judgements that learners make about themselves and others based on their seat in the classroom. One participant compared the relationship and judgments of the front, middle, and back, to that of the judgments around younger, middle and older siblings.
SPEAKER L: I feel like it's like the younger, the middle and the older siblings. Like the younger ones don't really get in trouble all the way in the front, the middle go unnoticed and the people in the back are either failing or playing video games.

The overall consensus was that there are in fact stereotypes around the position that you choose to sit in class. The front are characterized as the people who care the most, that want to get in the facetime with the instructor, that are eager and invested in learning. The middle is the “safe in between” and the back don’t really care, were distracted and didn’t want to be there. While the participants recognized that these biases do exist, they did acknowledge that they are not always accurate and it does depend on the person.

SPEAKER L: The people in the front are probably people who care more about like their bonding with, like the professor, or there's some people, that person, that needs to raise their hand for every single question, and work stuff out all the time. But I feel like some people have that idea, and that, like everybody in front, is either trying hard or really cares about their grades and about their bond with the teacher. But that doesn't go to say that people in the back don't care about it as much. Sometimes people in the back are just like the anxious people who really just do not play video games and stuff like that. I feel like it just all depends on the person.

Judgments and bias in the classroom do exist, and it is up to instructors and students to help to debunk them. There are complex reasons that a student chooses a seat that can be recognized. Overall, students crave flexibility and they are not always willing to compromise on their needs. The physical space is an important factor when it comes to understanding the post-pandemic learner.
Learning Environment

The learning environment includes subthemes related to learning styles, learning impacts, and accessibility. This theme recognized how both the physical attributes of the classroom and instructor behaviors and traits can impact the learning experience and outcomes. It also draws on the accessibility of the classroom and how it does or does not accommodate those who identify as anything other than able-bodied. There were several traits that impacted the learning environment, including; the physical attributes of the space, the format of the lecture, course material and subject matter, instructor traits and engagement and comfort level.

Hands-on and active learning was the most consistent theme mentioned in the focus groups. Students prefer to be in an engaging environment that values comprehension. Some prefer to have breaks throughout the lecture for comprehension checks or even assessments to test their understanding. Group work or active engagement with classmates is something that is seen positively to help them grasp the knowledge and relate it to their real life. Speaker J draws attention to the power of relating concepts to real world situations as a tool for memory.

SPEAKER J: In my education class, we do a lot of stopping and talking to the people around us about what we just learned, and we always related to something we saw when we were in our classroom and that always helps me remember cause when we can get to experience in real life, you can commit it to your long term memory. There is something about drawing in real-life examples and also hearing from peers that helps with learning retention, as Speaker K further echoes, preferring the “group think” aspect to conceptualize information.
SPEAKER K: Yeah, I like active group work, because I like not being the only one thinking, I like hearing what everyone else has to say, because it helps me relate and think. I remember what other people say better, more than what I am thinking.

Most students prefer to receive the powerpoints either in advance during class so they could follow along and they really had a negative reaction towards an instructor that reads directly off of the slides and does not engage the class, it actually impacts their willingness to attend the class. As one student noted, “Yeah, I just like to get the power point before class if I can. And during class I can focus on what the professor is saying, I think that works best for me.”

Instructor traits also impact the learning outcomes and motivations for attending class. Instructors who are engaging, good communicators, and knowledgeable have a stronger impact. If the instructor was enthusiastic about the subject and could really teach the subject matter effectively, students were engaged. The majority of the participants spoke about how important engagement was for them in the classroom as seen by the exemplars below, communication is key, vocal variety and enthusiasm make a big impact.

UNKNOWN SPEAKER: Also, like communication skills. I have one teacher this semester that talks just like this the entire time, just a monotone voice. I'm trying to learn right now, but like when you do that at eight in the morning and you're sipping your coffee, it's like, okay, mmm, you just read all sides. like, I don't know.

UNKNOWN SPEAKER: It has a lot to do with the professor. If they can teach it well, then I learn a lot better than even a class that I'm really interested in.

There were a ton of negative opinions about instructors reading directly off of slides, and also positive reactions to engagement during class either through discussion boards or in class
conversations. Speaker F brings up again, how important making connections to real life, or telling stories helps with retaining information.

SPEAKER F: Yea, if they're good communicators. And also, I feel like when we communicate with classmates more or when they talk more. And if you have a professor that reads monotone directly from their slides, I'm just not gonna learn that, whereas if they're describing it or telling us stories, or something that connects to the material. I feel like I remember it better that way. And then talking about it with classmates definitely, even if I don't like it. Sometimes, discussion boards and stuff like that kind of do really help you remember the material.

Another preference from the majority of participants was being provided with the learning material either in advance or during class. As Speaker D says, it’s much easier to retain the material when you don’t have to be worried about missing something.

SPEAKER D: I think the professor has a lot to do with it. And I also like professors providing resources that they like. Like, let's say it's a very notes heavy class. They'll make a template for the notes, and all you have to do is, I like that better cause I'm not just about writing everything on the powerpoint slide. I can actually listen most of the time, maybe like a word or 2 down every couple of minutes.

Participants also prefer to view their instructors as fair and do not like when they are called out in class without warning. This also has an impact on motivation to attend class.

SPEAKER M: Yeah, I think one thing that teachers really have to be a little bit better about is calling out people that don't have their hands raised and there's just some people that just either don't know the answer and do not want it to be called on. Or not knowing the answers, just leave me out of it. It makes me wish I didn't show up.
Also touching on fairness, students had mixed responses to group work, some preferring to have the autonomy to choose their own groups, with the majority preferring to be assigned by the instructor. Some students expressed that it relieved stress, especially at the beginning of a semester to be assigned. They viewed it as a way to meet their classmates and make new friends. Some also expressed that if it was a general education class, they preferred to be assigned, while in their own major they preferred to create their own groups.

SPEAKER C: So I'd rather this be the chance for me to get to know new people, like people already have their groups that they already want to be, and it's kind of like you're running around a classroom like head of chicken trying to find a group that either has like 3 people, or it's missing the person or whatever it, makes it so much harder and so much more stress inducing yeah, I don't feel like walking up to every group like, hey, you guys need one more person.

While Speaker C describes how stressful the experience can be running around the classroom, Speaker B, J and P look at group work as an opportunity to make new friends and meet new people.

SPEAKER B: Yeah. I like when the teacher puts you in groups. It's less stress on me to try and find, or like some people have, cliques or whatever, and I don't. So I like when they do it. Also, I think that way I make new friends that way that I didn’t even know I was gonna make.

SPEAKER J: Yeah. Personally I love when the teacher makes the groups, because, like the same way, it's way less stressful. And then it's like a fun challenge, like, I'll try and make these people my friends.
SPEAKER P: I like being assigned, because then you can have a chance to work with new people. New ideas.

Consistency seemed to be key, with students preferring to stay in the same groups for the entire semester once assigned. They expressed that it was very stressful to have to work with a new group for every project as seen from the speakers below.

UNKNOWN SPEAKER: Being able to work with that same group the whole semester versus like my economy class. Right now. Every week we have a new partner or like every two weeks. So yeah, it's hard to figure out how some of them work, to get on schedule if it keeps changing. But working with the same group all year, it's actually really okay.

UNKNOWN SPEAKER: Yeah, I had a Spanish presentation and I worked with this one girl and we did really good on it. And then when it came time for another presentation, she made the partners instead of letting us pick again, which was kind of confusing to me. Like if we have already worked with this person, we're comfortable with them. We've done a presentation, we know how they work. So why are you switching it up like that? It was frustrating.

While group work was viewed favorably, and most students preferred to be assigned groups, a lot of frustration was voiced when groups did not remain consistent throughout the semester, impacting their learning experience.

While it was mentioned consistently throughout the focus groups, it’s important to consider how the perceived student experience impacts their motivations to attend class and to retain information. This would not be possible without having a conversation about accessibility.

Accessibility was discussed in regards to the able-bodied student’s experience compared to
someone who identifies as disabled and also accessibility from a learning and comprehension standpoint. Participants were not asked to disclose disability, but some students voluntarily disclosed disabilities and neurological conditions that impact their learning experience, such as attention deficit disorder and being legally blind. Despite this, the accounts of accessibility were largely told through able-bodied students' eyes, and how they view accessibility on campus. Again, opinions were split on how accessible the Clemson campus was to those with any kind of physical disability. Although some recognized that there has been improvement, a strong majority voiced that there is still a long way to go on campus, voicing that these changes have not been enough or have left out important accommodations for people with physical or visual disabilities.

SPEAKER V: Yeah, I think you're definitely getting better. There is still, no, it's kind of fascinating. There's no accessibility on the actual classroom doors, because you can get in the building. But then how does the student get in? Get into the doors? Yeah, yeah, without somebody coming? And then they're redoing [buildings] and they can't change the bathrooms to be accessible because the tiles can’t be moved, they just can't have [disabled] students in there which is crazy. You're costing millions of dollars to redo this building, and you can't make it accessible. Yeah, so yeah, it's definitely interesting.

The student notices choices about accessibility with a sensitivity to the problems created by renovating a building but not accounting for accessibility. As the student continued, they articulated not only issues with buildings and renovations, but also with the simpler but still very necessary material tools for accessibility, like reflective strips.

A thing I notice is the stairs. You know how they have that guider, the strip, the reflective.

A lot of the stairs around here don't have it, and I'm visually impaired, so I can't tell
put my foot on them because I have no depth perception. Okay, so I have to go and take a 
ramp, or like other students who are visually impaired or even blind. They can't tell 
where to put their cause. [most] blind students aren't actually blind. They just have less 
vision most of the time. You're not 100%. That's why they use that reflective strip 
because they can see reflective. And it's not on their own.

Speaker V also drew attention to a specific lecture hall setup where the person in a wheelchair 
had to sit in the back and how it created a sense of otherness and overall unfairness in case she 
could not focus in the back, where she was forced to sit.

SPEAKER V: There's no options with that like we were saying. We all have the reasons 
for sitting in the classroom, and she has to sit back there. Yeah, she doesn't have another 
option, so if she has ADHD or she has ADHD and a wheelchair, she may not be able to 
focus back there. Yeah. So it's, it's hard, it should be more accessible.

When referring to Student Accessibility Services (SAS), most students just remember it being 
something in the back of their syllabus. Maybe the instructor mentioned it on the first class or 
before the first test, but for the most part the students are left on their own to figure it out. For 
those needing the accommodations, it was described as a daunting task that was not guaranteed 
to have a positive outcome. One student who identified as visually impaired explained that her 
understanding was that instructors could deny the accommodations, leaving the student to have 
to drop the class.

SPEAKER V: It's a lot different than high school. It's a lot different. You have to turn in 
all your paperwork and go in and talk to them. I'm visually impaired. You have to do all 
of your paperwork. And teachers aren't required to, it's kind of weird cause, there's not a 
lot you have to do in high school, they have to. There's certain times that they're like
Hmm! I'm not going to do that, like, I don't want to. Okay, but then I can't take your class and have to transfer. The process is much more on me now. Some expressed the process as being limiting, not giving students enough time or resources to get the help that they need. Overall, the process was described as less supportive than they anticipated.

UNKNOWN SPEAKER: I feel like I never really heard about it until the first exam.
Okay. Like the week before the teachers would be like and if you have like extra requirements or whatever, like figure that out. Yeah, I just heard about it from actually a girl that was in my class who couldn't get in contact with anybody and then didn't end up getting the extra time for testing.

Getting proper accommodations seemed to vary based on the instructor and the overall institutional guidelines were described as being perceived to be difficult and inconsistent, with no clear guidance. This caused confusion and sometimes learning consequences for those needing accommodations.

There were learning and engagement impacts described based on the themes above involving the spatial setup, the teaching style, instructor traits, subject matter and accessibility. Impacts varied from motivation to register for the class, attend the class, and to retain the information. The newer buildings had positive impacts on motivation to attend, with one student even saying that they stay more focused in the more modern buildings, and another even expressing that they feel like they learn better in a newer building. Overall they felt excited to go to class in the new environment. Speaker J attributes their focus to the new building, “And then I feel like the more modern buildings, I'm more focused. They're some reason, like in Daniel [new building] I don't get distracted as much.” Not only do they enjoy going to class in the new
buildings, it gives them motivation to attend, Speaker W even expressed disappointment in going to other classes that weren’t in a new building.

    SPEAKER W: I had a class in the business building and I looked forward to going there because it's so new. And that was my only class in there. So every other class I was like oh I have to go to class. But business feels like, oh, I get to go there.

They went on to even admit that they have convinced themself that they learn better in a new building.

    SPEAKER W: Yeah, the difference between the old buildings and the new buildings like drastic. And I think, I like, tell myself that I learn better and like the newer buildings, because I like going there.

Some students even choose their classes based on the location of the dorm and the proximity to the classroom, expressing that the location really made a difference to them as far as their motivation to attend class. A couple of students talked about both the location, the structure of the class and the weather impacting their motivation, if the class wasn’t going to be engaging they felt like they were better off staying home.

    Speaker I: I lived in [building] my freshman year and freshman year I was in engineering, so I had a little bit of a hike each day. And if it was like an 8 am class and it's really cold outside, I wasn't used to colder weather. Yeah, I wasn't going. Yes, it was like no participation. I was like no I’m not going [...] Especially if it's summertime and it's hot outside or raining outside and it's time that goes through like hot weather, rainy weather.

Motivations to attend class span many variables; from the location, building aesthetics, to the style of lecture. Newer buildings even excited some students and motivated them to attend class, even looking forward to it.
As mentioned above, learning format and instructor style definitely impacted motivations to attend class, with students preferring an engaging and hands-on learning experience to make it “worth it” to attend class. Sometimes this is an independent factor, being the sole motivator for attending class.

UNKNOWN SPEAKER: If they're not really teaching or like if they're, just reading off the slides you know? I don't need to make the hike somewhere…. I could have stayed in my dorm and studied them.

Instructor engagement style came up again in this context, with Speaker D even feeling frustrated that he had to attend in order to get participation credit.

Speaker D: If they're reading off the slides or they're not doing anything. I’m not going, but I will say the one thing that really has made me mad this semester is that if you missed two classes and points are deducted off your final grade. It should reflect in your grade anyway. So why does me missing that matter to you?

The learning environment and accessibility have deep impacts when it comes to student motivation and learning retention. The class environment matters, along with the instructor style and accessibility. Students weigh the pros and cons of attending class, and the value that they get out of going in-person.

**Communication**

The last theme to emerge was regarding communication with the instructor. Students shared their preferences for communication medium, receiving feedback, and how they interpret the syllabus. Overall, students were split on how they prefer to communicate with instructors between email and text. While texting is not always an option, depending on instructor feedback,
some students felt that it was a more casual and effective form of communication, with a quicker response rate. Speaker C, N and AA touch on the perks of texting and having that option.

SPEAKER C: I feel like texts are easier considering our professors are on their phones or have their phones on deck. The communication is a lot easier to be said and done and handled.

SPEAKER N: I prefer over text like, honestly, this is the first semester I've had that. But it makes it a lot less formal and, sometimes I'll put off writing email because I don't want to worry about the formalities of it, making sure it sounds right. So I feel like emails I read over a bunch of times before I send it. text, makes it a lot easier and the response is quicker.

SPEAKER AA: Sometimes I feel like when I write emails I have to format it properly, while a text I can just be like, Hey, I just had this question at the end of the lecture. You know, it's a very quick response versus a long drawn out email that I might write just overthinking it.

Other students felt that it was invasive and unprofessional and felt scared to text their instructor. They preferred other forms of communication that felt more professional like email. As Speaker A described, “I’m so scared, I’m like no way you want me to text a teacher! Like that’s literally an adult. I can’t do that. I am more nervous or like just not something I would want to do.” Speaker D echoed similar thoughts, “I think text is really informal and what they say on the syllabus is they want a formal. So I agree it's probably kind of awkward.” Another student, Speaker F felt it was an invasion of privacy, Speaker F, “I feel like it’s an invasion of their privacy to be like hey I’m your student it still feels strange.” Email was typically the form of communication that students preferred if they did not have access to text or did not find it
professional. They found it more professional and overall an easier method of communication. On the other hand, students who preferred texting, found email to be too professional and they spent a lot of time trying to make emails professional sounding, causing a lot of stress and anxiety.

Overall, the students agreed that they prefer communication to happen in one consistent place that was easy to access. Ease of use was very important to them. Having to communicate on multiple platforms was also seen as stressful and not knowing the correct contact information added to that stress.

SPEAKER D: I have to get things done quick and I need things that are quick and I'm not going to be wondering who I was supposed to be contacting in which way. It was like, Yeah, I'm not going to know and yeah, wondering if you contacted them the right way and whether or not they got it or not.

To alleviate some of the stress of formulating an email or text, some students prefer in person office hours communication. This avoids any misunderstandings or misinterpretation in their message.

SPEAKER F: I like face to face conversation. I feel like email there's a lot of stuff that can go wrong. Tone of voice. You don't know the tone, someone saying something, yeah, and just like talking it out face to face. You should get more information, clarify more things than email, I feel like.

Speaker K demonstrates the pre-conceived notions that some students have about how busy or how many emails instructors receive, using this as a reason to to talk in person.

SPEAKER K: I don't really like sending emails to professors or anybody, because I feel like, especially professors, they have mentioned how they have so many emails coming
in.. and I'm like, I don't want to kind of put some more stress by sending them an email. I don't want to bother them. So I don't really like to do that.

As far as receiving instructor feedback the overall theme that emerges was timely. Students prefer to have feedback within one week, or at least before the next assessment is administered. It was a clear sense of frustration that they often do not receive feedback before their next quiz or assignment. They viewed this negatively and as the instructor not doing their jobs.

UNKNOWN SPEAKER: Definitely within a week, like the scores. I would be getting on my lab report. So I didn't know what I'd be doing wrong if, before I'm starting the next one, turning in the next one. Yeah, cause they just released our grades at the end.

The narrative was told that they often have to wait weeks at a time to receive feedback, which has deep implications on comprehension. Speaker J and O describe those impacts below.

SPEAKER J: But I don't like when I have to wait 2, 3 weeks to that time where I'm going to stop caring about this. I may just accept the grade that I got waiting for so long to tell people what they need to start fixing, there's so many assignments between that time period that I continue making those continuous mistakes.

SPEAKER O: I don't like when we take a test, and then they take a month to get back the feedback cause it's like, then you're already like past that unit and stuff. But sometimes that's how it goes. Preferably, I wish it was like max, like a week.

Along with timely feedback, students also prefer personalized and comprehensive feedback. This is another area that collectively had negative feedback in regards to instructors offering very little feedback, especially if they have waited a long time for the comments. Just referring them to the standard rubric or giving the correct answers did not satisfy their needs. One speaker said, “(I
want feedback all the time) Okay. Like they will only like submit one comment in your paper, like do a better job.” Another echoed similar sentiments, voicing frustration about being referred to the rubric, “And so you got it wrong because of what it said in the rubric. I'm not gonna go open that rubric.” Speaker D talked about the importance, especially in science and math related classes, that showing how to get to the answer (the work) really is.

SPEAKER D: I think one thing that teachers could do a lot more of is like rather than just like releasing the answers to the homework, releasing like work, correct work. How to get the answer, because, like, especially with a lot of the STEM questions, the work, like even on the exam, you'll be graded on the work, and they don't even show the work when they give you like the correct answers. So it's a lot of just good examples that I can follow.

The need to be seen and acknowledged as an individual person, with personalized needs is very important to this demographic. They prefer to feel seen, and only refer to rubrics or syllabi as a guide, they look to the instructor to be available for feedback. When they are met with the response to refer to the rubric they feel that they are being dismissed with a generic response, requesting more personalized feedback.
CHAPTER V

DISCUSSION

This thesis sought to explore the impacts that the architecture and spatial dynamics of the classroom had on the post-pandemic student experience and expectations. A qualitative study using focus groups and self-reported outcomes was conducted to better understand the student experience. As demonstrated in the analysis, the results of the focus groups produced four overarching themes: impacts of COVID-19, classroom layout, learning environment, and communication. While the participants came from different backgrounds and geographic locations, their shared experience of COVID-19 remote learning has given them common ground and preferences, illustrating how the intersection of power, knowledge, education, accessibility, and social relationships are deeply connected (Lefebvre, 1991, 2001; Shome, 2003). Henri Lefebvre (1991, 2001) suggests that “space is a bounded collection of many subjects, objects and their relations (p. 143). Results of this study echo this, describing how the space can either add value or be a constraint, offering takeaways at both the macro and micro level to begin to break down the barriers.

Sentiments largely echoed that of prior studies done, showing that students expect qualities such as flexibility, self efficacy, sense of belonging, teacher care/enthusiasm, and digital competencies (Hews et al., 2022). This thesis produced three major findings; the first two confirm the (1) importance of flexibility in the classroom and highlight (2) accessibility in regard to technologies, space, and communication. Drawing from the work of Shome (2003), the importance of looking at mobility and physical accessibility in order to alleviate a sense of otherness is expressed. The third and most unexpected takeaway from the study—that set out to understand students’ experience of learning space—identified (3) the learning habits of the
post-pandemic student with their changing preferences and priorities as compared to pre-pandemic learners. This encompasses the impact that COVID-19 had on their learning experiences and expectations beyond mental health issues, focused on work-ethic, self-reliance and responsibility. While the need to be seen holistically and the desire for an active and flexible learning environment isn’t new, what is new is the awareness and set of expectations that this generation has. The impact of being digital natives has given them a sense of control and power that the past generation did not have. Having access to share learning experiences, read about other learners’ experiences and even the opportunity to write reviews about instructors publicly online, has added to this sense of power and control. Their constant access to information has given a sense of control, but it has also given them a lack of attention span that needs to be recognized in the classroom.

Flexibility

The first research question: How does the post pandemic learner describe the impact of the architecture and layout of the classroom on their learning experience?, is largely answered through the narrative of flexibility. The post-pandemic learners of this study are very aware of the physical space around them. They seek aesthetics and experiences that help to retain their attention, make them feel comfortable and most importantly contain flexibility. They make it clear that they are very strategic and aware of their experiences in the classroom that have impacts on their learning outcomes. Overall they describe their ideal classroom set-up to be flexible in movement and to have a fluidity that offers a sense of autonomy in the space.

Windows and natural light are very important, creating a calming environment where it is easier to focus. Movable furniture that is easy to use is preferred, with students expressing a desire for classrooms that have more space or options for seating. They expect to be able to hear and see
the material with ease, and consider this when choosing their seat. If a classroom is too dark, too old, too dull, or too difficult to navigate they will have opinions on it and they describe learning impacts like attending class or difficulty focusing. Post-pandemic learners also described the space as impacting their learning outcomes, some saying that they felt they learned better in newer spaces. While it may seem daunting for instructors to consider these external factors largely out of their control, such as the building setup, lessons can be learned from these findings. Instructors can consider the space when building in-class participation and learning activities. By recognizing that the space is a constraint they can adjust strict policies and add a sense of flexibility to the day-to-day of the classroom. If there is fixed-seating they could incorporate in-class participation with partner-share exercises, or groups. This encourages participation in class, while keeping the restraints of the room in mind. If a classroom lacks natural light, and has the option to possibly dim the lights, they could poll the class on their light preferences at the beginning of the semester. In a smaller class they might even consider moving the class outside on days that the weather allows.

Some students indicated anxiety about flexible communication methods, stating a fear of texting with their instructors. Many universities and organizations require that conversations happen over email so that the exchanges are documented. If flexibility bends rules, norms, or expectations, what are the ethical concerns around those changes? Most instructors strive to be fair and ethical in their classrooms, and flexibility could threaten this if certain boundaries aren’t drawn. The lines drawn are largely personal, and each instructor will need to consider their own limitations and how much flexibility they want to offer to the post-pandemic learner. How much time can an instructor actually give to crafting personalized and individualized attention to each
student? It will be important for instructors to create policies that align with their own personal boundaries while following guidelines set by their institution.

Accessibility

Participants had high expectations for both the physical space and the instructor qualities in regard to accessibility, answering research question two: *What expectations do post-pandemic learners have about accessibility in the educational context?* Results indicated that accommodations in line with the American Disabilities Act (ADA) are expected, especially in new buildings, and spaces are thought to be unacceptable if accessibility is not considered. While the majority of students did not volunteer a disability status, students describe the perceived sense of “otherness” created by older lecture halls, echoing Parsloe & Smith (2022) and Shome (2003), referring to the experience that a person in a wheelchair might have. Although new buildings were described as improving, certain accommodations seem to have been forgotten in new builds, such as reflective strips, and accessible doors, which is described as a misstep by students. Obtaining accommodations through Student Accessibility Services (SAS) are described as confusing and hard to understand, further proving the narrative around (mis)fitting and otherness in the classroom (Parsloe & Smith, 2022 and Shome, 2003).

The physical space of a classroom/building can either add value or constrain the learning process. Beyond the physical space, the narrative around accessibility is told as a story of ease-of-use in regard to the technology, lecture style, learning material, and communication. Participants described their favorite and most impactful classes as being engaging, utilizing active learning. They detest when instructors read off of the powerpoint slides and prefer interactive learning, making it “worth it” to attend lectures. Students want technology that is accessible and clearly defined. They describe their favorite classes as having engaging and
personable instructors who put accessibility, comprehension and ease-of-use first. If an instructor knows their name, that is a big win! Instructors who have clear and timely communication are best-liked, making it easy to contact them and easy to give feedback. Students expect personalized and timely feedback and they expect to be able to contact the instructor with ease. While standardized feedback can still be used, especially if they are struggling, students prefer specific feedback to help guide them in their understanding. They find it very frustrating to receive feedback after the next assessment is due, not giving them an opportunity to improve their learning. Ideal communication methods varied, with email being the most widely preferred and text being considered largely intimidating. Whatever method of communication students use should be clearly established by the instructor making it easy to contact them and get a response.

Post-Pandemic Learner

The unintended finding from the study identified the learning habits of the post-pandemic student, which includes the impact that COVID-19 had on their learning experiences and expectations in regard to work-ethic, self-reliance and responsibility. Students painted a narrative of having a very lenient high school experience due to the impacts of COVID-19; I might even go as far to describe it as a “free for all.” They described a scenario where accountability was stripped away, failing was not an option and attendance was optional. They also described learning loss and self-reliance, often becoming dependent on themselves to learn the material or in some cases just not learning at all. While a few participants did acknowledge that remote learning during COVID-19 actually taught them responsibility, they were essentially referring to the experience of having to teach themselves the material due to the learning gaps and learning loss that were experienced during this time period, further echoing the sentiments of this time period being the “worst learning crisis in a century” (Asadullah et al., 2023). Prior to COVID-19,
students traditionally experienced more freedom when attending college, while students in this study described their experience beginning college as almost repressive. Post-pandemic learners entering college are finding it difficult to understand why they now have attendance policies that impact their grades, learning standards, and consequences for their actions. Considering their experience of COVID-19 learning when many post-pandemic learners were in high school, entering college they first and foremost wanted flexibility and accessibility. Post-pandemic learners lived through a global pandemic that will have consequences for years to come. They were expected to be adaptable, while also managing the everyday “normal” challenges that teenagers go through. COVID-19 disrupted not only their learning, but their entire life, causing impacts both emotionally and interpersonally. Gen Z was already facing challenges seen from the impacts of social media, with an increase in mental health issues that were exacerbated by the pandemic, causing an increase in anxiety, depression and worry (Reyes et al., 2022). The increased pressure to fit a certain image on social media, while constantly being “plugged in” to technology, along with the deep impacts of COVID-19 make the post-pandemic learner a unique and complex student that needs to be considered with care, compassion and flexibility. Students want technology to be integrated into the classroom with ease of access. Some students in the focus groups even voiced frustration when an instructor did not know how to appropriately use technology. They prefer the technology to be integrated into the lecture, with discussion posts and quizzes along the way to test their understanding and keep them engaged. A majority of participants also had a strong urge to feel connected to the instructor, for them to learn their names, and to even check in with the class about their mental health.
Interpretations and Implications

Participants of this study expected to come to college and have freedom, which is the stereotypical college experience. The cultural expectation is that you come to college to learn, grow and gain independence. It’s often portrayed in the media as a time to find yourself with no limits. What many students found was that their experience of being remote during COVID-19 threw this off balance. When they arrived at college they were met with more restrictions and more accountability than they had in high school. While it may not seem unreasonable to have attendance policies in college, it felt repressive for students who had none in high school. Students had to relearn “work ethic’ and “accountability” around strict grading and deadline policies. The experience of being “locked down” during the pandemic, trapped behind a computer screen, having to largely keep themselves accountable, with attention spans suffering, has made engagement in the classroom and active learning a priority, but students don’t always have pre-existing experience with participation expectations and can struggle with adapting from a disengaged virtual learning environment. The physical environment matters, the room matters, and the aesthetics matter more than ever because they lived through a time where their bedroom or dining room became their classrooms. They need a reason to leave their room more than ever before and are asking for flexibility and accessibility in doing so.

The findings from this study have implications for both administrators and instructors of higher education institutions. The call to look at the post-pandemic students holistically, and to consider what this new generation of learners wants, creates space to accommodate their needs and improve learning outcomes and experiences. Flexibility and ease-of-use can be implemented at both the macro and micro level; in university policy, curriculum design, classroom furniture, and individual lesson plans. Reflecting on Lefebvre’s (1991) assertion that space is created not
only by the people that occupy it, but by the power and economic systems in place within each social system, administrators can consider students’ experiences with technology and their learning styles that emerged from the pandemic when making high level decisions about new construction and building design and standardizing course requirements. Instructors can implement more active and engaging learning practices while also practicing more “compassionate care” and “ethic of care” (Gilligan, 1982; Sellnow, 2022, p. 158), by considering students’ lived experiences through COVID-19 and the impact that it had on attention spans and work ethic. Instructors can also work to break down stereotypes and a sense of “otherness” in the classroom by striving to create a holistic culture in the classroom setting. This can be accomplished by being mindful of student’s unique experiences, about their learning styles and preferences. Instructors should be cognizant of creating an open and supportive environment that encourages open dialogue, participation and regular checks-in with learners for feedback.

While the qualitative study conducted spanned four focus groups, giving the space for participants voices to be heard, there were limitations to the study. While three of the four focus groups contained 7-9 people and were held in-person, one focus group had only four participants and was held on Zoom. The majority of participants were female identifying and white; a larger and more diverse sample size would expand the voices heard and add value to the findings. Problems transcribing and assigning pseudonyms made it difficult to track the flow of conversations in some focus groups. Findings all came from one Southeastern university, focusing on the spaces and experiences, which limited the findings. Participants were also offered class credit to fulfill a requirement for their COMM 1500 class, which could have skewed the results.
Future research could expand on this work by conducting a similar study at other institutions to compare experiences and results. To expand on the current findings, focus groups of instructors could be implemented to analyze their experiences in the classroom and how the post-pandemic learners have changed or not changed. To further the research on the experience of the post-pandemic learner in the classroom, studies can be conducted specifically around the topic, utilizing focus groups, interviews and observations in the classroom. It will be important to continue the research as more impacts of COVID-19 are discovered.
CHAPTER VI

CONCLUSION

The post-pandemic learner is a new generation that requires new solutions when looking to the future of higher education. These solutions need to be a collaborative effort, looking to administrators, instructors and students to create and support change. It may seem overwhelming for administrators to meet these changing needs, but they can keep the following concepts in mind when looking at the future of building renovations on campus. Students want flexibility in order to meet their ever present attention disorders and to accommodate the impacts of constantly being plugged into technology. It will be imperative for new architecture plans to keep flexibility and accessibility top-of-mind in new and improved ways. To begin with, newer lecture halls and classrooms should implement moveable and flexible furniture that gives students at least a degree of space and control. This could include widening rows, installing chairs that move, moving completely away from desks or chairs that fold and are connected. Students' increasing anxiety should be considered when designing exits, giving multiple options or ease of exit. Overall, moving towards the active classroom as a standard, and keeping flexibility top-of-mind will meet many of this generation's needs. While many new classrooms already incorporate these techniques, it will be important to continue to make the improvements for buildings and rooms that do not yet meet these criteria. Natural light should be considered the priority, making adjustments where necessary with softer light or lights that dim. When considering accessibility, administrators should include students and faculty with visible and invisible disabilities in the conversation to ensure that key factors are not overlooked, to avoid othering. This should include students who identify as having attention and neurological disorders. The changes being requested by this generation can widely be considered aesthetic, which is very important when
adapting for the post-pandemic learner. This generation grew up curating their social media feeds and being inundated by seemingly perfect surroundings online, and they are keenly aware of the space around them. It will be important for educators to consider this when designing new learning spaces.

While instructors may feel at a loss for how to respond when they are often not in control of the room they teach in, there are key takeaways from this study that instructors can incorporate into their classrooms regardless of the spatial setup. The most salient takeaway from this study is to consider how to incorporate flexibility into the structure of the classroom. If an instructor is bound to a space with limited flexibility, they can create a lecture format that is easy to follow to make up for the lack of movement in the room. This could include providing notes in advance that are easy to follow along with, facilitating assessments throughout the lecture and encouraging active conversation and participation in class. Keeping students engaged and ensuring they have the material, will support students who may not have a clear line of vision or hearing in the classroom. It can also help to support students who have a hard time focusing.

There may also be an opportunity to test basic skills necessary for the class at the start of the semester to assess the baseline of the class when it comes to course material. Because many students experienced learning loss during COVID-19, it will be important to adapt for it when creating the syllabus. This could include providing resources for learners, modifying assignments and reviewing basic study skills. It’s also important to try as much as ethically possible to keep compassionate care top-of-mind in the classroom. Making an effort to learn students' names and offer personalized feedback is very important to this generation who lost so much face-time during the pandemic. While it’s important to remain fair and consistent, this generation more than any other craves that one-on-one attention and personalization.
Of course, classrooms are not comprised of only administrators and instructors. Students can also take it upon themselves to negotiate any limitations that the space or classroom might offer. With instructors and administrators becoming aware of the toll that the pandemic has had on learning for the post-pandemic student, there is an opportunity for collaboration. It will be important for students to communicate and share any learning loss that is recognized. Students can also seek out support services on campus, such as tutoring, writing centers, and extra services to help them overcome any challenges. It is imperative that students feel comfortable to share how the space impacts their learning. If they need to have a specific seat in class, or other accommodations, it’s important to communicate with the instructor and proper administrative channels. Being aware of the challenges the space can have, and choosing a seat that best supports their learning is key when it comes to negotiating the space.

Overall the narrative depicts how the spatial dynamics of the classroom and accessibility to both the space and the individuals in the classroom contribute to the learning experience. Imagine a world where students didn’t have to compromise between their individual needs and their education. Where the practice of “othering” and marginalization was recognized in the classroom and there were deliberate steps taken to correct it. Where accessibility was the standard and compassionate care was the average practice. As the post-pandemic learner continues to drive change in the classroom, it will be important to continue to offer opportunities for their voices to be heard and for administrators and people in power to consider appropriate action. What if the “worst learning crisis in a century” (Asadullah et al., 2023), resulted in the “greatest advancement of accessibility and flexibility in the classroom,” as the post-pandemic learners continue to advocate for change in the classroom and beyond.
REFERENCES


APPENDIX

Appendix A

Self Reported Questionnaire - Pre Focus Group
Demographics

1. What is your age?

2. What is your gender identity?
   ● Male
   ● Female
   ● Non-binary
   ● Gender Fluid
   ● Prefer not to say

3. What is your race/ethnicity [select all that apply]:
   ● American Indian or Alaskan Native
   ● Asian
   ● Black or African American
   ● Hispanic/Latino
   ● Native Hawaiian or Other Pacific Islander
   ● White
   ● Other _____________

4. What is your class year?
   ● Freshman
   ● Sophomore
   ● Junior
   ● Senior
   ● Other

5. What is your major?

6. Have you taken an online college course?
   ● Yes - Name course
   ● No

7. Did you experience any remote learning during the COVID-19 pandemic?

8. Have you taken a class in a large lecture hall on the Clemson campus?
Appendix B

Focus Group Semi-Structured Questions

- Describe the environment of your favorite class.
  - What made it your favorite class?
    - The teacher, the subject area?
    - Where was the class located?
    - What was the setup of the room?
- How did Covid change your expectations or goals for college?

Class Climate

- How inclusive do you feel your classroom experiences have been?
  - What specific factors led you to feel this way?
  - How have accessibility and diversity been communicated to you in the classroom?

Interaction

- What has your experience of in-class group work been?
- How do you prefer to interact in the classroom with other students?
- How do you prefer to communicate with your instructors?
  - What form of communication do you prefer, texting or email?

Physical Environments and Products

- Where do you typically sit in a traditional/large lecture hall? (Give examples, maybe show photos to differentiate the different classrooms)
  - Where do you typically sit in a newer active style classroom? (Give examples, maybe show photos to differentiate the two classrooms)
  - Moveable classrooms?
  - Smaller classrooms?
- How important is flexibility to you in the classroom?
- What is your opinion on the classroom buildings and layout at Clemson?
  - Do you consider them accessible?
- What is your ideal classroom or learning environment?
• Do you think the classroom space encourages you to be, do or act differently than in other spaces in your life?

Delivery Methods
• Do you notice a difference in your focus for different classes? What do you think contributes to this?
• What are some methods that you use to stay focused in class?
• What lecture style do you prefer?
  ○ Powerpoints, lectures, active group work?

Information Resources and Technology
• How often do you refer to your syllabus?
  ○ Do you find them easy to read and process?

Feedback
• How often do you prefer to receive feedback from your instructors?
  ○ How do you prefer to receive feedback?
    ■ Email, Canvas, in person?

Assessment
• Do you think your class assignments and tests give you a chance to demonstrate your learning in the class?

Accommodations
• Do you know how to access student accommodations on campus?
• What are your expectations and or/experiences using SAS on campus?