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Seat Selection as a Function of Cultural and Individual Differences: Insights from Undergraduate Students in China

ABSTRACT

Students' seating selection is a significant physical variable that has implications for both teachers and students. These seating preferences have been linked to students' personalities, motivation, and academic performance. However, there is limited knowledge regarding the cultural influences on these preferences. In this exploratory qualitative study, we aim to investigate the cultural factors that influence the seating choices of undergraduate students. The study participants were recruited using purposive sampling. Face-to-face interviews and scenario simulation surveys were utilized to collect data, which was analyzed using thematic analysis. The study's findings suggest that seating preferences are largely a function of individual differences and personal preferences, which often stem from personal and cultural factors. These factors are discussed under five primary themes: course academic value, gaining positive experiences, avoiding negative experiences, modesty and humility, and social belonging. These findings have implications for teaching and learning and for instructors, especially those from foreign cultures.

KEYWORDS

seat-selection, undergraduate students, China, higher education

INTRODUCTION

In the fall of 2020, the two faculty authors of this paper moved to teach at a Sino-American joint venture university in China. While there, they observed uneven seating patterns among students in small and large classrooms. They noticed that certain students or groups of students consistently chose seats in specific areas of the classroom. Of particular interest was the fact that sometimes the two front seats were left empty, and at other times, the middle section of the class would be empty, with students occupying seats to form a doughnut shape. As teachers and educational researchers, the authors found this pattern intriguing, and they informally spoke to students after class to find the reasons behind it. However, they later decided to formally examine the factors determining Chinese students' seating selection in a Sino-American university in China from a scholarship of teaching and

learning (SoTL) approach. To this end, they collaborated with five student partners who were equally interested in this research, integrating students' voices through co-inquiry with faculty, as student-faculty partnerships are considered an effective and inclusive approach (Felten et al. 2013).

Given the evidence that cultural values play a significant role in shaping students' learning choices (Li 2005), we adopted the Chinese national culture framework to guide the study's conceptualization and data analysis.

In the sections below, we discuss past studies that were conducted to understand the antecedents and outcomes of students' seat selection. While doing so, we highlight the relevance and limitations of those studies. After, we elaborate on the unique context of the study by discussing the Chinese cultural values and social norms grounded in the Confucius traditions to ground our inquiry.

Seating arrangement: antecedes and outcomes

The physical environment of a classroom significantly impacts classroom dynamics in terms of quality and style of instruction, students' interest in learning and engagement, and teacher-student and peer-to-peer interaction, among other factors. Sommer (2001) emphasizes that a classroom should not be perceived as a singular, uniform space but rather as a complex system of interconnected and diverse micro-environments, including physical infrastructure, teachers, students, curriculum, institutional policies, and much more.

In higher education classrooms, the conventional arrangement featuring multiple desks arranged in rows, all facing the instructor who is stationed at the front of the room, was deemed suitable for a stand and deliver, sit and listen approach (Zhang 2019). In traditional classroom settings, teachers hold a significant amount of power as they are the ones who primarily use the classroom space, including the blackboard or whiteboard. The teacher also dictates the placement of desks and chairs for students, creating an imbalance of power (Sommer 2001). However, the emergence of new technologies and changes in global and economic spaces have led to transformations in classroom structures and in the roles of teachers and students. Concerning classroom seating arrangements, both students and teachers now have the opportunity to create flexible layouts that differ from traditional arrangements. This also includes students' ability to choose their seats, exerting whatever control they can have to design their physical learning environment.

Research in the discipline of education (Wannarka and Ruhl 2008), communication (Totusek and Staton-Spicer 1982, 159–63), design, and architecture (Haghighi and Jusan 2015) has shown considerable interest in investigating classroom seating arrangements in terms of its antecedents (factors influencing seat selection) and outcomes associated with seat choice. Totusek and Staton-Spicer (1982) defined seats situated in the center as "action" seats, and Wulf (1976) called the center an "action zone."

To understand whether there is any association between seating location and academic performance, Becker et al. (1973) proposed the environmental hypothesis and the self-selection hypothesis. The environmental hypothesis suggests that classroom seating location affects student learning and engagement. Students who sit in the front and center of the classroom tend to be more engaged and have higher academic achievement. In other words, the physical environment of the front seats may foster participation and attentiveness. On the other hand, the self-selection hypothesis proposes that certain types of students, those who are more motivated and studious, choose to sit in the front seats, while less studious students sit in the back. Therefore, the differences in engagement and achievement based on seating location may be explained by the pre-existing traits of the students who self-select those seats, not the seats themselves.

Becker et al. (1973) and Wulf (1976) provided evidence in favor of the environmental hypothesis, which is that students in the action seats performed better, were more engaged, and had higher GPAs. Margerum-Leys and Marx (2002) showed that students who occupied front seats asked more questions. As evidence of the self-selection hypothesis, Totusek and Staton-Spicer (1982) concluded that practical/imaginative students chose to sit in action seats, and students assigned to sit in action seats were imaginative, self-reliant, and assertive. These results were confirmed in Brooks and Rebeta's (1991) study that showed students, especially women, who sat in front rows performed academically better than men and those who sat in the back In line with the self-selection hypothesis, Mercincavage and Brooks (1990) revealed that seat selection was a function of students' achievement motivation, while Hillmann, Brooks, and O'Brien (1991) proposed that it was the function of students' level of self-esteem.

While these findings can be significant in helping teachers adjust their instructional practices, this review also suggests that they can lead to the development of stereotypes. For instance, teachers may assume that bright and competent students prefer to sit in the front center seats, while students who lack confidence, knowledge, or interest in learning tend to choose seats in the back (Sommer 1959). This typecasting can potentially influence instructors' teaching in a few ways. For example, teachers may unconsciously favor students in the action seats in terms of providing more opportunities, attention, and support, assuming that they are more competent and engaged in the material. The stereotype could also impact the expectations teachers set and convey to their students, which has a direct association with students' performance.

It's important to note that this stereotype may not necessarily be accurate or fair. Students' seating choices may not always be associated with their abilities or attitudes toward learning but with other factors, such as sociocultural norms, values, and practices. A few obvious limitations of the current literature on the issue of seat selection are that almost all studies discussed above were quantitative and investigated the issue of seat selection with an objective lens, overlooking the role of culture and subjective experiences in understanding students' seat preferences. Second, most studies are dated and were conducted before the introduction of digital tools in regular classrooms. Digital tools such as laptops, tablets, interactive whiteboards, online learning platforms, and wireless internet access have transformed classroom dynamics and may influence students' seating choices. For example, screens or lesson PowerPoints can be accessed from any corner of the class, dissuading students from sitting in the front or encouraging them to seek seats that offer convenient access to power outlets for device charging.

Finally, it should be noted that these studies are primarily grounded in Western contexts and do not consider cultural factors. Therefore, these findings limit our understanding of this complex phenomenon grounded in personal preferences, social dynamics, and other contextual factors. We believe that qualitative methods grounded in the study's unique context can provide a more nuanced understanding of the context in which seat selection occurs and can help uncover the underlying social and cultural factors that shape students' seat selection.

The national culture: Confucianism and education in China

For this study, we focused on the values proposed by Confucianism, including respect, modesty, humility, and cohesiveness, as they pertain to the national culture of China. Confucianism has profoundly impacted Chinese society by shaping interpersonal relationships, social structures, virtuous conduct, and work ethics. The importance of loyalty, filial piety, and respect for authority figures such as parents, teachers, and supervisors are emphasized, along with the virtues of courtesy and humility (Kaur, Hashim, and Noman 2014; Li 2016). Students may demonstrate humility and

respect by listening attentively to their teachers and peers during class (Kaur 2020). They also tend to avoid boasting or showing off their achievements in order to avoid drawing attention to themselves. For example, in classroom settings, students may refrain from showing off their academic strengths so they don't stand out. However, while the value of humility in Chinese culture promotes accepting your own mistakes, Chinese students often prefer to keep their thoughts to themselves for fear of failing or committing mistakes (Wan 2001).

Confucianism also emphasizes the importance of relationships, social harmony, and the greater good by promoting values of respect, harmony, loyalty, and collaboration. The ideology of collective success grounded in collectivist values is of great interest to us. This means that individual interests are subordinate to collective interests, which is a fundamental moral principle regulating the relationship between individuals. These principles dominate traditional Chinese classrooms, cultivating patriotism and socialist values among students. They encourage students to care for the collective, assist others, and thrive in collective settings (Hu and Zhang 2002), and as a result, students in a classroom setting may prefer peer support, help-seeking, and helping others.

Confucianism also proposes a practical approach to learning. Spina et al. (2020) note that there are cultural differences in knowledge-seeking between Eastern and Western contexts. Western thought is often rooted in Greek contemplation of theoretical concepts and natural phenomena. In contrast, East Asian thought originates from a Chinese emphasis on practical and sensory information for daily use. This orientation can help explain why Chinese students may prefer listening and hands-on activities over abstract thinking, discussion, or debate as learning methods. For example, "Chinese students were found to feel frustrated and bewildered when Western teachers expected them to engage immediately in questioning and analysis" (Li 2005).

According to Confucian doctrine, an individual's development and performance is essential to achieve familial success. Thus, families regard children's educational success as a very important pathway to personal advancement, higher social status, respect, and wealth (Lin and Fu 1990; Wu et al. 2023). This emphasis places enormous pressure on students to excel academically in education. In Chinese culture, exam grades are regarded as a measure of one's academic excellence (Stevenson et al. 1990; Sun et al. 2021) because they are tied to the cultural values of hard work, persistence, effort, and academic success, which are seen as pathways to admission into top universities, to secure prestigious jobs, and to achieve upward social mobility. Additionally, exam scores are often used as a way to measure a student's worth and potential, leading to a highly competitive education system. Therefore, securing good grades and GPA is one of the central objectives of education.

The current study context

This study was conducted at a university campus in southern China that collaborates with the local city government and a public university in the US. The university campus in southern China has four colleges and offers 20 undergraduate programs and seven graduate programs, including a doctoral program in education leadership. It has around 4,500 students enrolled at all levels of study. The university employs approximately 200 international faculty members from 35 countries across the globe. The university campus in China has adopted a curriculum that mirrors the teaching contents, course delivery, and course requirements of the US campus.

Additionally, the Chinese campus participates in the US accreditation process, which indicates consistency in how student learning experiences are designed and delivered across both campuses. The student population is nearly 100 percent from China, and a majority of students come from traditional Chinese high schools (Noman et al. 2023). Therefore, this teaching and learning context

provides us with a unique context to study the factors that are responsible for shaping students' seating choices.

METHODS

Ryan (2006) acknowledges that, according to the post-positivist viewpoint, the researcher's values and background can affect qualitative research methods. The current research originated from the faculty researcher's personal inquiry into Chinese students' seating preferences in classroom settings. Therefore, the research had a broad objective, i.e., "How do students choose their seats in classrooms and why do they do so?" followed by a secondary question, "What is their most preferred seating arrangement?" This study used an exploratory qualitative research design to achieve the research objective. Qualitative research can help researchers produce valuable data and insights that examine emotions, attitudes, motivations, and participants' actual behavior in real-world situations (Creswell 2013).

The methodology is significantly shaped by the positionality of faculty and student researchers. The two faculty members (the second and the corresponding author) involved in the study are Indian-born academics who have previously worked in India, Thailand, and Malaysia and are currently employed in China. Both are educational researchers; however, the disciplinary expertise of the second author is educational psychology, and the other author's is educational leadership. The student researchers were all psychology majors and sophomores at the time of data collection. Their insights into data collection (use of Chinese language and proximity and ease with students) and interpretation of findings (application of cultural lens) were highly significant to the study.

Participants and sampling

The research population for this study was comprised of first-year students who received their secondary education in the traditional Chinese education system. At the time of research, these participants were enrolled at a Sino-American cooperative university in China. Using the convenience sampling technique, 20 freshmen (28.89% males and 61.11% females) between the ages of 17 and 19 were recruited to participate in the study. These students were enrolled in general education courses, and they came from different majors across the university. For example, College of Business: 7 (38.89%), College of Liberal Arts: 6 (33.33%), College of Science and Technology: 4 (22.22%) and College of Architecture: 1 (5.56%). All students spoke Mandarin as their first language.

The institutional review board approved the study. The researchers posted a recruitment message QR code through paper posters and e-posters. The paper posters were placed on bulletin boards in the student residence halls and General Education Hall, while the e-posters were distributed through WeChat, QQ groups, and Moments on WeChat.

Data collection

We collected data through face-to-face, in-depth interviews. This technique enabled us to observe participants' real-time expressions and their feelings more accurately. This method also reduced the emotional distance between the interviewees and researchers, creating a trusting and open environment. It is especially beneficial for shy students who may otherwise be reticent in expressing their true feelings.

Written consent was obtained before the interviews. The participants were assured that we would do our best to protect their confidentiality and anonymity. There was no compensation provided for their participation.

The interviews were conducted in Mandarin. Each interview was recorded, later transcribed, and translated into English for analysis. A detailed interview protocol was designed for data collection, which included 1) ice-breaking questions to create rapport, 2) basic background questions such as major field, experiences as freshmen, etc., 3) main questions, and 4) supplementary development questions to provide a logical connection between the questions. A few examples of those questions are: a) what are some factors that determine your seat choices? b) how is your seat selection different from your peers? Did you ever regret sitting in the wrong place in class? If yes, why?" At the start of the interview, we present a seating diagram based on empirical studies (refer to Appendix A) to help interviewees better understand and visualize the seating arrangement.

Data analysis

This study employed an inductive, bottom-up process to conduct a thematic analysis, following the basic structure and forms suggested by Clarke and Braun (2013). This involved searching for patterns, examining interactions, and exploring narratives. The analysis process consisted of six main steps, following Clarke and Braun's instructions. 1) Researchers began by obtaining a clean and organized transcript, reading it as a group, and discussing any unclear or ambiguous statements to minimize subjective bias and misunderstandings. 2) The transcript was then coded using open codes; we generated more than 80 open codes in the first round to describe participants' responses regarding seating arrangements. 3) Researchers calculated the frequency of each code and grouped codes into different relatable categories to form original themes. 4) Themes that deviated significantly from the main topic were filtered out, focusing only on those relevant and contributing to the overall coherence and clarity of the study. 5) The researchers agreed upon the final selection of themes, and these themes were consolidated under two major themes. 6) Finally, researchers composed their written report based on the chosen themes. The following section explains the two primary themes and the themes within each primary theme.

FINDINGS

The data analysis suggested two final primary themes, out of which one elucidates students' preferences in terms of the overall seat structure and specific factors that determine their seat selection in the classroom. The two themes and sub-themes are discussed below using verbatim.

Factors determining seat choices

The data obtained from open-ended interviews demonstrated that several factors students use to determine seat selection. We present those factors under five themes below. Table 1 provides an overview of the codes generated.

Table 1. Codes assigned to major themes

Themes	Codes
Course academic value	GPA, course credits, core or electives, foundation course, pre-requisite.
Gain positive experiences	Enjoyment, interest, engaging, challenge, difficulty level, pleasing, fun, independent learning.
Avoid negative experiences	Confidence, subjective competence, burden, anxiety, stress, awkwardness, pressure, questions, interaction, nervous, spotted, stare

Modesty and humility	Ambition, show-off, performance, competition, bravery, comparison, seeking attention, high achiever, courage
Social belonging	Friends, same gender, familiar faces, similarity, social circle, chatting,

Course academic value

The data obtained from open-ended interviews demonstrated that a significant number of students (75%) stated that the course's academic value in terms of course type (core, elective or general), credit value, and contribution to GPA influenced their seating choices. For example, participant 9 said,

> Normally I choose to sit at the back. Elective courses are important to my GPA and also for me to build my foundational knowledge. I would sit either in front or center whenever possible to be able to access all the information.

Another participant mentioned:

> I will choose to sit in the front of the center when taking compulsory (core) courses, it is pretty tough to get an A in these courses, so I will try to put more effort into the learning process at the beginning. I choose to sit in the back of the classroom when I take elective classes since they are easy and not meant for my job in the future. (Participant 16)

Participant 12 said, "If the class is my major course, I sit in the middle of the first row in this class because I want to establish a valid knowledge foundation for my major." The university also offers some courses that are required but are not counted towards GPA, which also affects students' seating preferences; as participant 4 said, "I will choose to sit in the back of the Chinese National Conditions & Culture course. Because it is not counted in grades and is not so important." Students have courses bearing different credit values. Therefore, courses with the highest credits hold a higher value, impacting their decision to choose seats in class. Participant 1 said, "If the course has six credits, which is more important, I will come a little bit earlier to grab a middle seat . . ."

Participant 17 explicitly summarized the above points, "If a student attaches great importance to this course, he should come to the classroom a few minutes before the first class and choose his preferred position."

Gain positive experiences

The findings demonstrate that positive experiences in classes, such as finding the subject matter interesting, being appropriately challenged, experiencing an appropriate level of difficulty, enjoying and having fun while learning, and having a teacher with a pleasing personality, can also impact where students choose to sit in class. For example, participant 6 said,

> For difficult and important subjects electives, as well as the ones that are enjoyable, I will sit in the front. However, take a math course as an example, where I can look at the book and PPT and learn on my own; I don't need to sit up front.

Similarly, participant 2 mentioned,

> I will sit in the front of the class. I am interested in the content, and I will choose to be slightly in the front or second rows in the class. If I am bored in a class that has no activity or interaction, I would sit at the back.

Students perceive some classes as more challenging or important for their academic or career goals and believe that sitting in the right place will help them perform better and achieve their desired outcomes. Participant 7 said, "Some classes barely have any activities or discussions; students just listen and take notes from PowerPoint provided by our teachers. It does not require specific consideration for seating as students can learn independently." Students who don't enjoy or have fun while learning or are capable of self-learning may prefer to sit in the back rows.

The teacher factor was also an important factor. As participant 13 stated, "Interesting teachers will make me want to interact with him more and sit closer to him/her. Students believe that sitting in the front row will help them better engage with and learn from the material in those classes. Likewise, participant 10 said, "Professors who are interesting and have pleasing personalities who smile and joke a lot would surely make me want to sit close to them." Students also associated their positive feelings about their teacher and/or subject with choosing to sit in front rows. As participant 9 said, "If I have a favorite class or a favorite teacher, I will choose to sit in the front."

Avoid negative experiences

As much as the desire to experience positive emotions determined the participants' seat preference, their desire to avoid negative experiences was equally significant in the interviews. The students expressed several factors that could contribute to feelings of discomfort, stress, anxiety, or pressure. Participant 5 said, "I am more likely to be nervous in the front row. Feeling safe is more for effective learning." For example, being visible and picked on to answer class questions was one of the sources of anxiety associated with the seating position. As participant 7 stated,

> I don't like the seats in the first row because I don't want to engage in the class frequently or get teachers' attention, and I don't want to be questioned very often, which will give me an unnecessary burden.

Students felt compelled or forced to sit in the front row of a class even though they didn't feel adequately prepared or knowledgeable about the subject matter. They believe that the pressure to sit in the front row came from being put on the spot by the teacher. Participant 15 said,

> I felt pressured to sit in the front row of a class when I didn't learn enough. I think the pressure comes mainly from worrying about whether the teacher will ask questions rather than worrying about what my classmates think.

They expressed that being spotted may also expose their mistakes and contribute to negative feelings.

> For math, I tend to sit against the wall or in the middle of the class and try not to sit in the aisle anyway because the math teacher usually watches us solving math problems during the lecture. This can cause me a great deal of academic pressure. If I make a

> mistake in solving a problem, the math teacher will directly point it out aloud, which makes me feel embarrassed. (Participant 6)

Surprisingly, teachers with open and engaging personalities whose classes were interactive also caused students to select seats that allowed them to escape awkward activities. For instance, participant 6 mentioned,

> The English (English as a second language) Professors are always those who speak loudly and are very interactive. They are addicted to group discussions. So, students will not take seats or grab the first row because people sitting in the first row will be easily picked by teachers to complete some awkward activities like mimicry or role-plays.

Regardless of their good rapport with the professor, some students preferred to sit at the back, hoping to avoid being called on to speak in class. Participant 2 said, "I have a good relationship with the economics professor. The professor asks me to answer questions every class. After too many interactions, there will be an impulse for me to sit in the back." Participant 8 added that "being stared at by teachers could make me nervous," and participant 10 said, "I would choose to sit somewhere in the middle because I don't want to be picked out easily."

Modesty and humility

*O*ne of the most interesting themes was modesty and humility, which shaped student participants' seating preferences in class, specifically with regard to occupying front seats. Several student participants thought that occupying front rows in the classroom indicates overconfidence and high ambition, which may go against their principle of modesty. For example, participant 7 said,

> We Chinese usually do not want to behave so aggressively and ambitiously. Sitting in front is a signal indicating that you want to be a great student or even the greatest student in the class. That image would cause you lots of anxiety. Thus, the empty front rows.

Students associated sitting in front as being competitive; participant 8 said, "I am the one who does not like to compete with others. And students in the front usually have a strong awareness of competition, which is against my nature. Thus, I prefer sitting in back rows."

While students were worried about standing out and getting noticed, they were also anxious about not being able to prove themselves or achieve the standards they set by sitting in front rows, thus making careful and humble decisions about choosing seats in the classroom.

> . . . Because Chinese students don't like to "stand out" and make everyone pay attention to them. Also, if you sit in the front for a long time, everyone will think that you are an excellent student, which will make you feel stressed, and you will feel humiliated if you don't perform well in this course. (Participant 14)

The data suggested that the students were concerned about their social image and how others perceived them. Sitting in the first row can often be associated with being a serious and studious student, which some students may view as undesirable or boastful. They may also worry

about standing out and drawing attention to themselves if they are the only one sitting in the first row, as expressed by participant 15:

> Sometimes, if there is no one sitting in the first row at the beginning, it will be embarrassing for you to sit in the first row alone, and everyone will think whether you are a kind of nerd or a very ambitious person.

The interview responses suggest that while participants admired the bravery and confidence of their classmates, who are courageous and not afraid to show off their ambitions, they were hesitant to display too much enthusiasm or ambition because they were worried about appearing unusual or pretentious. Participant 11 said the following:

> Yes, I do not want to behave too positively or confidently, making me look pretentious. But I know some of my classmates do not care what other people think of them. They are brave to show their ambition and grab the most visible seats.

Quotes from participant 17 reinforced students the message that choosing to sit in the front row can be interpreted as pretentious and overconfident while sitting in the back row indicated humility.

> The students in the front row want to listen to the class more seriously and interact with the teacher to show off a strong desire to express themselves. Students in the back row may be quiet and introverted and don't want to show themselves too much, but they are also very serious about their studies.

Social belongingness

The final theme, a desire to sit with friends, suggested the need for social cohesiveness. This desire, especially to sit with friends the same sex, can significantly shape student seat selection in class. Students mentioned that they prefer to sit with friends: "If I have friends enrolled with me in the course, I will choose to sit with my friends" (participant 8). Participant 10 said, "When I choose to sit, I will also ask if people around me are friendly." This participant also spoke for others, "I know some people decide to sit next to their romantic partners."

Choosing to sit with familiar faces was an important factor for students while picking their seats. According to them, "Sitting with the person I am most familiar with can help me better concentrate in the class" (participant 17). Participant 18 also mentioned that:

> I will choose seats I like instead of sitting with familiar people. I have seen a TED speech that said don't sit with familiar people because sitting with strangers can be good for your social life.

Students also mentioned that sitting with peers of the same gender "Sitting next to people of the same sex is more comfortable than with an opposite sex." (Participant 14)

Preferred seating arrangement

The students also provided their opinions on the preferred class seating structure, using the seat simulation diagram as a reference. Detailed preferences are shown in Table 2. Seventy percent of

students chose the traditional seating arrangement whereby the desks or tables are arranged in straight rows, often facing the front of the classroom where the teacher is situated. The desks or tables are aligned in columns, creating a grid-like pattern that maximizes the number of students that can fit into the classroom. For example, participant 7 said,

> I prefer the traditional seating arrangement the most. Because I think the traditional arrangement is the most scientific, reasonable, and suitable for the needs of most classrooms. No other seating arrangement can be 100% facing the blackboard and podium, and the neck is uncomfortable when sitting.

Table 2. Preferred seating arrangement

Seating arrangement	Frequency and proportion
Rows and columns	14 (70%)
Horseshoe/U-Shape	2 (10%)
Clusters	2 (10%)
Stadium/fan-shaped	2 (10%)
Runaway	0
Combination	0
Circle/O-Shape	0

N=20

Participant 2 expressed a similar opinion, "I like the still traditional seating arrangement. Because several other seat arrangements, although they look novel, are not practical." The primary reason for students' preference for traditional seating arrangements was their ability to see the whiteboard, PPT, and instructor. For example, participant 15 said, "I like the traditional seating arrangement. Because the traditional seating arrangement allows me to see the PPT and the words written by the professor." Some were very explicit about expressing their dislike of alternative seating arrangements, citing similar reasons: "I do not like the u-shaped classroom. I always felt my back hurt after class since I could not sit right opposite the teachers and the whiteboard.

A few students expressed their preference to alternative arrangements, like participant 5 who said, "Personally, I prefer the horseshoe-shaped seating arrangement. I have a lot of English writing classes. During the writing class, discussion with the whole class is required." However, they insisted that for effective learning and to limit fatigue, class seating arrangements that make the whiteboard and podium accessible are the best. As participant 11 said, "But if you form a circle, you need to adjust your posture to look at the blackboard, and some people will feel uncomfortable with their backs to the blackboard."

DISCUSSION

The findings suggest that students' seating preference is a function of individual differences and personal preferences emanating from personal and cultural context. It is evident student participants were aware of the idea of "action seats" (Totusek and Staton-Spicer 1982) and their ability to stimulate more interaction, participation, and engagement in class.

Course academic value

The findings suggest that course type and its contribution to GPA and knowledge significantly shaped students' seating preferences. In other words, students often choose action seats in courses with a higher impact on GPA and more relevance to students' majors. On the other hand, students had no specific seat choices for foundational courses and those with fewer credit values. This revelation is not surprising since students understand that primary or action seats facilitate better learning experiences associated with higher learning outcomes (Becker 1973). The front row provides better visibility of the instructor, visual aids, or PPT used during lectures, which can aid in understanding and absorbing the information being presented. Students are more likely to participate in discussions, leading to a stronger connection to the material and improved retention (Haghighi and Jusan 2015). Finally, sitting in the front row can improve accountability, as students are more visible to the teacher or professor and may feel more motivated to pay attention and participate actively. These findings are consistent with Chinese cultural norms and academic values. Academic achievement is highly prized in Chinese culture (Schneider and Lee 1990; Stevenson et al. 1990). The GPA in particular is viewed as a critical measure of academic success, effort, persistence, and potential for future opportunities in Chinese culture. A high GPA is not only a source of pride for students and their families, but also a determining factor in securing admission to prestigious universities for graduate degrees and employment opportunities (Rabow, Choi, and Purdy 1998).

Emotional experience

The study found that the emotional experiences of students significantly influence their choice of seat in the classroom. The students in the study were acutely aware of the impact of emotional experiences on their learning and how positive emotional experiences, as explained by Fredrickson (2004), can build and broaden thought-action functions, while negative emotions can have the opposite effect. As a result, students chose to sit in action seats, anticipating positive experiences and enjoyment in class. On the other hand, some students chose back rows or less visible seats to prevent negative experiences such as stress, anxiety, and nervousness.

The participants primarily associated their experiences of positive emotions with interest in the subject, engaging lectures, and the likeness of the instructor. It indicates that students are more likely to feel confident in their ability to learn and understand the material when they are interested in a subject. This confidence can lead them to sit in the front rows without worrying about not answering the questions. Similarly, engaging lectures and/or quality rapport with instructors can provide supportive and motivating learning spaces for students, encouraging them to sit in action seats. Consistent with past studies, these findings can be interpreted as seat selection is a function of students' personality type (Pedersen, Polson, and Hintze 1987; Totusek and Staton-Spicer 1982). Students wanting to experience positive emotions choose teachers who are open, interactive, and engaging; on the other hand, students who get anxious or conscious of social comparison avoid teachers with similar personalities.

Of particular interest were the students' explanations for avoiding negative experiences in a class by choosing to sit in seats that would not put them in the spotlight. According to them, being spotted by the instructor to answer questions or being asked to participate in awkward activities like role play or mimicry caused stress, anxiety, and nervousness, which in turn can negatively affect their learning experience.

These reasons have a clear explanation grounded in social and cultural norms. For example, traditional classrooms in China emphasize memorization and rote learning rather than discussion-based activities (Johnson and Luo 2012; Phillipson 2007). Therefore, students in a university with

Western pedagogical practices can find it challenging to adapt to the more participatory and interactive classroom culture, leading them to be more reserved and hesitant to speak up. Additionally, the cultural norm of "saving face" (Ye and Pang 2011), which means avoiding behaviors that might lead to embarrassment or shame in front of others, can influence the behavior of Chinese students in the classroom, making them more likely to be shy, quiet, and sit at the back (Hwang, Ang, and Francesco 2002). The fear of making mistakes or appearing imprudent or irrational in front of others can lead students to avoid drawing attention to themselves by speaking up or actively participating in class. Sitting at the back of the classroom can help them blend in and avoid standing out, reducing the risk of making mistakes or being judged by others.

Modesty and humility

The theme of modesty and humility displays a distinct association with the sociocultural norms of the subjects under study. The investigation revealed that for some students, occupying the front rows denoted a sense of great ambition, self-promotion, bravery, competitiveness, and, occasionally, hostility. Such behaviors contradict the traditional Chinese principles of modesty and humility, resulting in a disinclination among several students to select seats in the front rows (Li 2016). In Chinese culture, boasting about one's academic achievements or ability or competing aggressively with others can be seen as a violation of the principle of humility. In Chinese culture, cooperation and harmony are valued over individual achievement and competition (Hằng et al. 2015); therefore, doing so openly can be viewed as selfish and without regard to the well-being of the group.

Social belongingness

Finally, the theme of social belonging explained that several students choose to be close to their peers or the same sex, due to familiarity and/or the need for social cohesiveness. The desire to sit with friends can be powerful motivators for students when it comes to choosing where to sit in the classroom. Research has shown that students tend to choose seats that are close to their friends or people they feel comfortable with, even if it is not the best location for their learning, (Benedict and Hoag 2004; Faur and Laursen 2022), clearly indicating that the social aspect of the classroom can have a strong influence on student behavior and motivation. The findings can also be interpreted by applying the Chinese cultural lens, highlighting the importance of interpersonal relationships, social harmony, and cooperation. Sitting close to individuals feels comfortable and allows students to interact, communicate, engage, and even ask questions that they are hesitant to ask teachers. Additionally, by sitting next to peers, students can exchange notes, discuss concepts, and provide each other with academic support. This collaborative approach to learning aligns with the Chinese cultural values of cooperation and harmony, and it can facilitate a positive classroom environment that promotes learning and academic success (Hằng et al. 2015).

Preferred arrangement

Given the findings on the factors determining the seating choices of students in a Sino-American university in China, it is unsurprising that the most preferred seating arrangement among student participants was structured rows and columns. They found this arrangement to be both convenient and conducive to learning, as it allowed them to see the whiteboard and instructor without causing any physical discomfort. Moreover, the factors influencing students' seat selection suggest that only a few students in the study are inclined to participate in class discussions or engage in frequent interaction with their peers or instructors. Surveyed students often see their seat selections as a way to create a more structured and disciplined learning environment, though others

may argue that their seating choices can be restrictive and hinder collaborative learning opportunities. Some researchers suggest circular or horse-shoe-styled seating arrangements provide equal opportunity for students to participate (Stires 1980).

The participants in this study came from traditional Chinese high schools, where the students are expected to be passive learners who listen attentively to their teachers and absorb knowledge rather than actively participate in discussions or debates. Therefore, Chinese students may be more accustomed to a formal learning environment where they can focus on individual learning and absorb information quietly without too much interaction with peers and instructors. It's important to note that these observations may not apply to all Chinese students, as individual preferences and learning styles can vary greatly.

CONCLUSION AND IMPLICATIONS

This study has a unique context: it examines the factors that determine classroom seating choices and the preferred seating arrangement of freshmen students who previously studied in traditional Chinese high schools and later enrolled in a Sino-American university for undergraduate education, where the American curriculum mainly relies on Western pedagogies that seek active student engagement through class discussions and student-faculty interaction. The seating arrangement of students in the classroom has a strong association with teaching techniques and pedagogy, and their seating preferences shape the classroom climate and learning dynamics (Brown and Lee 2015). The study's findings suggest that seating preferences are largely a function of individual differences and preferences, which often stem from personal and cultural contexts.

According to the study, student participants' reasons for choosing classroom seats included course type, credit value, contribution to GPA, interest in the subject, and a desire to experience positive emotions. In contrast, students who preferred back seats cited the avoidance of negative emotions such as stress, anxiety, and nervousness that may arise from being called upon by the teacher to speak or, answer a question or participate in class activities and discussions. The findings also indicated that some students chose to sit in the back rows out of modesty and humility, as demonstrating overconfidence by sitting in the front rows may be frowned upon by others. Most of these reasons were found to be grounded in traditional cultural values and norms.

The findings of this study have significant implications for instructors, particularly those who are not familiar with Chinese classrooms and may introduce foreign pedagogies for student engagement. Instructors must consider cultural factors and avoid stereotyping students based on their seating choices. The assumption that students in the back rows are less engaged should be avoided. Instead, instructors should recognize that these students may prefer to learn through observation and may feel undue stress and anxiety if forced to speak in front of the class.
The study's findings also suggest that for group assignments, providing students with autonomy to choose their group members would be more suitable. Students may prefer to work with same-sex peers or peers with similar disciplines or interests. Whenever possible, instructors can ask students to arrange their chairs and desks as they wish. Additionally, the study suggests that students' seating preferences may, in some cases, be indicative of instructional quality or the teacher's personality.

Overall, the study shows that seat selection is a strategic decision made by students to optimize their learning and performance. Instructors should be aware of this and provide students with the necessary flexibility and support to achieve their learning goals. By doing so, instructors can create a classroom environment that is conducive to learning and encourages active student engagement.

While the study has meaningful implications, it is important to note that the results cannot be generalized to a larger population. It is essential to conduct further research using alternative methodologies, such as longitudinal observational studies with samples in diverse contexts. This will contribute critical insights and a better understanding of the factors that determine seating choices in the classroom. Longitudinal studies will enable researchers to observe changes in students' seating preferences over an extended period, taking into account external factors that may influence their decision-making. Additionally, conducting studies in diverse contexts will allow for a more comprehensive understanding of the cultural and societal factors that may influence student seating preferences. By conducting further research, educators and instructional designers can gain a deeper understanding of student behavior and preferences, which can lead to the development of more effective and culturally sensitive instructional strategies. This will ultimately benefit both instructors and students, creating a more inclusive and engaging learning environment.

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DISCLOSURE

This manuscript was developed without the use of Generative AI or AI-assisted technologies at any stage. The writing, idea generation, image production, graphical elements, data collection, and analysis were all conducted manually.

ETHICS

This study received ethical approval from the Kean University Ethics Review Board (IRB number: 21-040708). The approval process ensured adherence to strict ethical guidelines, particularly regarding participant rights and welfare. Participants were fully informed and consented, underlining our commitment to ethical research practices.

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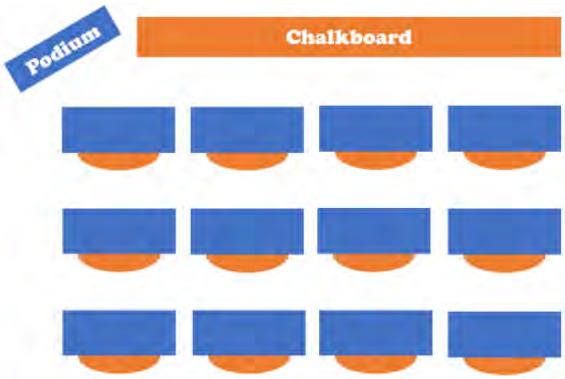
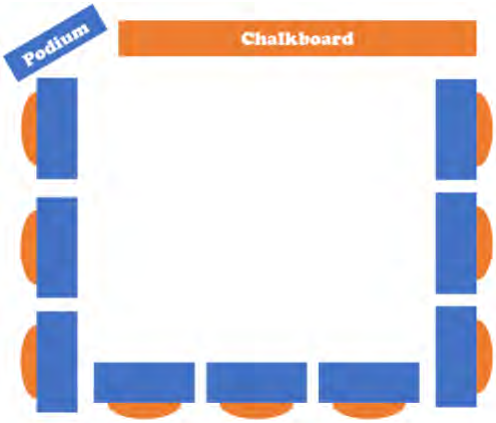
APPENDIX

Seating Arrangement–seat simulation diagram adapted from Asino and Pulay 2019; Marx et al. 1999; Tobia et al. 2022

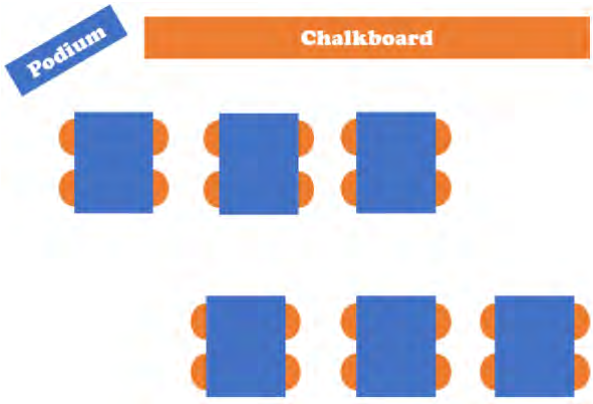
1. Rows and columns



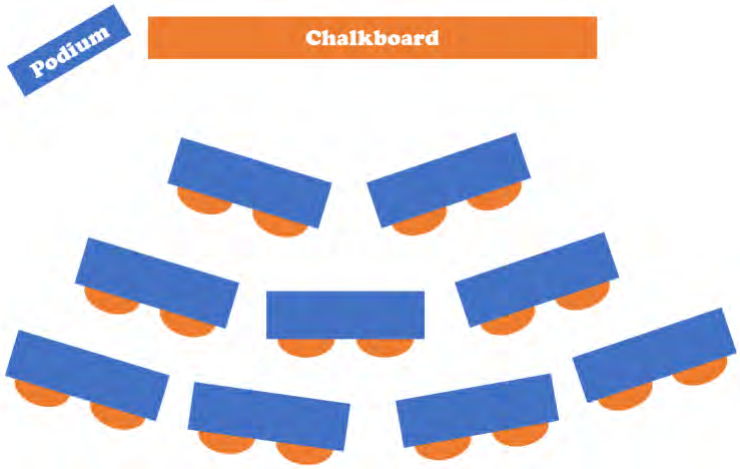
2. Horseshoe/U-shape



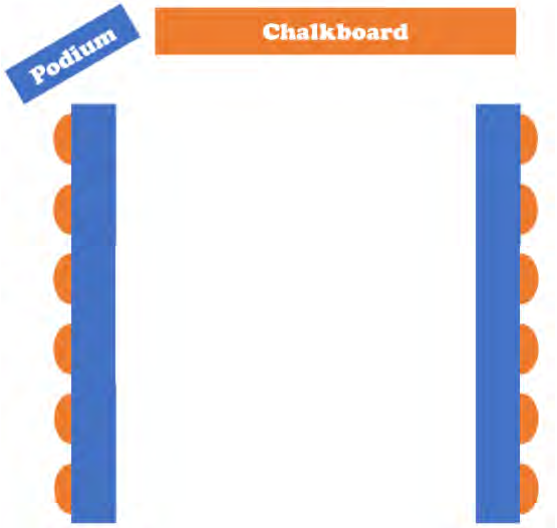
3. Clusters



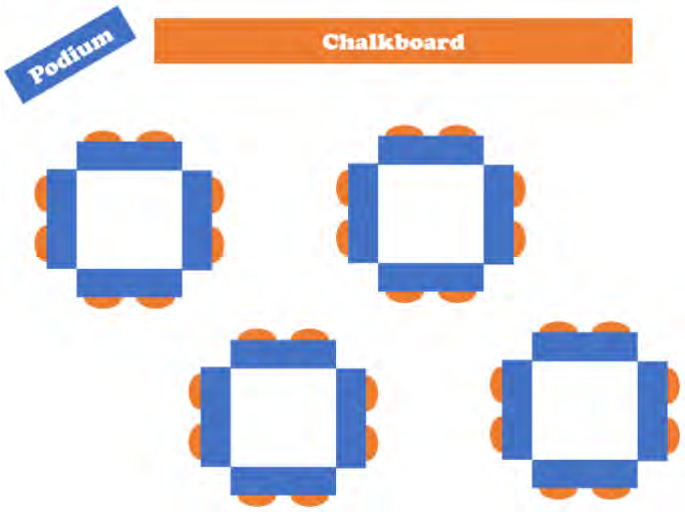
4. Stadium/fan-shaped



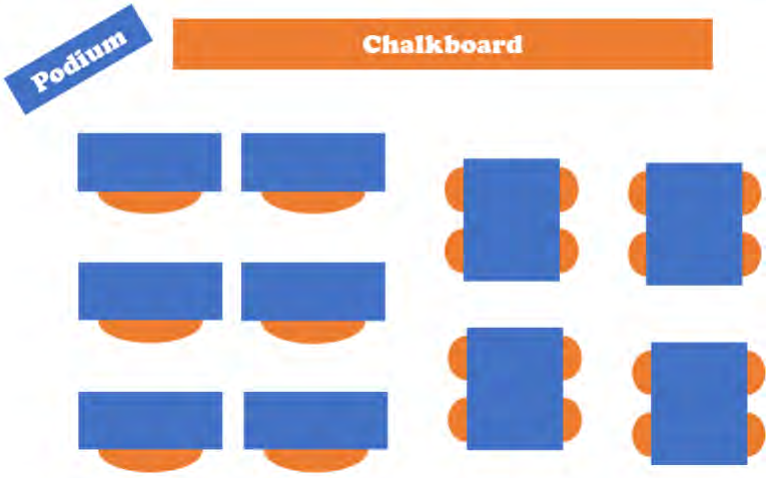
5. Runaway



6. Circle/O-shape



7. Combination



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