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The Effects of Various Classroom Seating Arrangements on English Learners' Academic Achievement

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THE EFFECTS OF VARIOUS CLASSROOM SEATING ARRANGEMENTS ON
ENGLISH LEARNERS' ACADEMIC ACHIEVEMENT

A Thesis Presented to the Faculty of
the University Honors Program
Northeastern Illinois University

In Partial Fulfillment of the Requirements
of the NEIU Honors Program
for Graduation with Honors

Alvin Gutierrez
May 2022



HONORS SENIOR PROJECT
ACCEPTANCE AND APPROVAL FORM

Alvin Gutierrez

The Effects of Various Classroom Seating Arrangements on English Learners' Academic
Achievement

This thesis has been reviewed by the faculty of the NEIU Honors Program and is found to
be in good order in content, style, and mechanical accuracy. It is accepted in partial
fulfillment of the requirements of the NEIU Honors Program and graduation with honors.

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ABSTRACT

Nelson Mandela once stated, “Education is the most powerful weapon which you can use to change the world” (Duncan, 2013). Education fosters growth-mindsets within an innovative environment. As a future educator, I want to create a classroom environment that is most adaptable and accommodating for students--a space that is diverse, inclusive, and promotes student voices. Creating a student-centered learning environment is beneficial to both academic and social emotional success in school and beyond. I want my students to develop a level of confidence by encouraging them to reach their full potential. With a focus on English Learners, my research project explores if various classroom seating arrangements affect student learning. The purpose of my research is to (1) identify some of the best practices of designing a classroom environment, specifically focused on seating arrangements and (2) secondarily, determine the instructional tactics and teaching methods that foster student growth and positive interaction. My research analyzes qualitative data from a variety of pertinent, scholarly sources. My preliminary analysis indicates that effective seating arrangements promote social interaction and engagement in the classroom; thus, a community of learners is established within a safe, welcoming learning environment. This study, therefore, aims to determine the optimal setting that encourages students to actively partake in their learning through social interaction and level of engagement.

Keywords: seating arrangement, English Language Learner, clusters/groups, rows

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A special shout out goes to my beloved family. The moment I stepped foot in this vast world I was blessed. I would not be the person I am today without you all. Thank you, Mom and Dad, for doing all you can to continue the Gutierrez legacy. When the going gets rough, you guys always remind me to keep pushing through and reach that finish line. I will FOREVER keep my eyes on the prize. And I will NEVER forget all of the wisdom you have poured onto me. Thank you to my brothers, Ian and Rammil, for reminding me to enjoy myself. Often, I get so caught up with my academics that I forget to be a 21 year old teenager. You guys have always been there to share the joy and goofiness of life. Thank you to my grandparents and all of my ancestors who have come before me. I will live up to my full potential! Thank you and God bless!

TABLE OF CONTENTS

ABSTRACT.....	iii
ACKNOWLEDGMENTS	iv
TABLE OF CONTENTS	v
LIST OF FIGURES	vi
ABBREVIATIONS PAGE	vii
DEFINITIONS PAGE	viii
INTRODUCTION	1
ANALYSIS OF DATA RESEARCH	3
Physical Classroom Arrangement	7
Individual Rows	11
Grouped Seating	17
Additional Seating Arrangements	20
Role of The Teacher	24
EFFECTS OF SEATING ARRANGEMENTS	27
Academic Performance and Seating Arrangements	27
Social Behavior and Seating Arrangements	30
CONCLUSION	34
REFERENCES	38

LIST OF FIGURES

FIGURE 1. TRADITIONAL ROWS	12
FIGURE 2. CLUSTERS/GROUP SEATING	19
FIGURE 3. ROUNDTABLE SEATING	21
FIGURE 4. PAIR SEATING	22
FIGURE 5. HORSESHOE/U-SHAPE SEATING	23

ABBREVIATIONS PAGE

Initialisms

EFL: English as a Foreign Language

ELL: English Language Learner

ESL: English as a Second Language

DEFINITIONS PAGE

English as a Foreign Language: The study of English by non-native speakers.

English as a Second Language: The practice of learning English in a predominantly English-speaking country.

English Language Learner: Students who are in the process of learning English as a second or additional language.

INTRODUCTION

The academic mindset is a basic human need. Research has found that a sense of belonging is influenced by relationships (Keyes, 2019). As described by Keyes, the support and respect for personal autonomy is crucial to experience that sense of belonging within a community of learners. An integral component of managing a classroom is how the seating is arranged. Classrooms should be a learning space that is adaptable and flexible to students' needs. The learning environment refers to all aspects of a classroom that facilitates and supports learning.

Teachers have the liberty to arrange desks, seats, tables, and other classroom materials to stimulate student involvement and participation throughout any lesson. Students and teachers may perceive the classroom environment differently. The learning environment of any educational institution refers to the conditions in which learning takes place. Teachers should continuously make efforts to improve the classroom setup as demonstrated by the needs of their students (Gremmen, van den Berg, Segers, & Cillessen, 2016; van den Berg, Segers, Cillessen, 2012).

Rajae Pitehnoee, Arabmofrad, & Modaberi (2020) claims that the relationship between learner achievement and classroom environment varies. Students' overall learning experience in class can be influenced by their learning environment. Teachers make decisions about who students sit by and who they are exposed to for the entirety of the school day. However, teacher training does not often address the structural design of a classroom environment.

Finding ways to incorporate a variety of engaging activities can essentially promote the use of a foreign language and improve fluency in the targeted language. As Cervantes (2012) pointed out, academic departments need to also give more attention to the composition/setup of a classroom. It was noted that language classes with 12 to 15 students permit a greater chance to work in pairs, small groups, and whole-class interaction (Cervantes). To foster inclusivity and further enhance communication, teachers should change seating arrangements frequently. This allows students to associate and discuss with different peers in the class.

Students' social and emotional needs can be impacted by classroom seating arrangements. This can significantly influence a student's academic performance in the classroom. When considering an appropriate instructional approach to teaching, Rajae Pitehnoe et al. (2020) suggests that the physical environment of a classroom should also be evaluated. Teaching methods and instructional techniques may be influenced by the physical environment of a classroom setup.

Studies have shown that an effective classroom setting can lead to more diverse teaching strategies, positive emotional impacts, and even result in better performance on assessments (Rajae Pitehnoe et al., 2020). Researchers are beginning to analyze the importance of the classroom setup and overall design as an essential factor in the educational system. Keyes (2019), citing Goodenow (1993), noted that a sense of belonging in the classroom included acceptance, being valued, and receiving encouragement from others. Effective seating arrangements can help establish this sense of classroom belonging.

ANALYSIS OF DATA RESEARCH

For years, educational researchers have been increasingly concerned about the way teachers manage their class and the potential impact on students' learning behavior. I analyzed data collection from an observation conducted outside of the United States. According to Duncanson (2014), research has shown that by just adding additional space (approximately 80 square feet) can benefit students in the following ways:

1. Students can find a space to read in pairs or independently.
2. A sense of independence is gained as students are encouraged to find their own materials.
3. Organizational improvements made by the teacher are often replicated by the students.
4. The number of distractions are reduced as the distance between students increases.

A lack of research pertaining to the impact of seating arrangements in classrooms in Chile sparked interest in conducting further research. The ministry of Education in Chile declared that the primary objective of foreign language teaching is English oral communication (Correa, Lara, Pino, & Vera, 2017). Correa et al. (2017) investigated the influence of seating arrangements in relation to students' levels of engagement in an English as a Foreign Language (EFL) classroom. As noted by Correa et al., classroom management has two main purposes: to create an environment where students can achieve academic growth and enhance their overall social abilities. Researchers questioned what factors of an EFL lesson encourage student engagement and what hinders them from referencing the target language.

Researchers in Chile investigated the effects of changing rows to separate tables. There were two phases of observation: the first was conducted with traditional rows and the second with separate tables. According to the researchers, classrooms in Chile tend to have a distribution of desks and seats in the traditional row layout. As students were interviewed, an analysis of their perception pertaining to students' level of engagement and participation as a result of the two different seating arrangements was conducted.

After altering the classroom seating arrangements, researchers observed how students actively participated by using verbal language during EFL lessons. A sample of students was recorded over the time span of approximately one month. The Correa et al. (2017) research study suggests that separate tables helped students learn in a relaxed-free environment that essentially promotes interaction. Regardless of the EFL classroom setup, Cervantes (2012) and Correa et. al. both noted that the Spanish language was used more often during student interactions within their individual research. All in all, these learners maintained positive mindsets regarding the new seating arrangement and appeared to be more motivated during the EFL lessons.

To further explain the influence of a classroom's physical setup in relation to student learning, I analyzed a study showcasing a reciprocal relationship between a classroom's physical design, the provided tasks, as well as learner characteristics. Researchers focused on Iranian students learning English as the target language. There were 622 teachers from 28 different classes in the study. This study validated the constructivist learning space. The constructivist environment incorporates a variety of

resources to help individuals achieve common learning goals. The results in the study concluded that both teaching instructions and cognitive learning are influenced by changes in one's physical learning environment. The existing teaching and educational space were not conducive when the Iranian students attempted to learn English.

There are many variables that hinder students from achieving their full potential, especially for English Language Learners. Students with varying levels of English proficiency and are studying at an institution that predominantly speaks English can feel quite intimidated. It is important, therefore, to understand how seating arrangements can play a role in reducing language anxiety. Oftentimes, language learners fear pronouncing a word incorrectly. As a result, anxiety can influence academic achievement in the classroom (Yan & Horwitz 2008). Learning a new language can be quite intimidating, and there are still very limited sources that address the impacts of seating arrangements in relation to English Language Learners.

In their study, Yan and Horwitz (2008) administered the Foreign Language Classroom Anxiety Scale (FLCAS). In Shanghai, People's Republic of China, approximately 532 business majors from first to fourth year students participated in this study. Utilizing the FLCAS scores, participants experienced either having high, medium, or low anxiety. From course levels one to four, a total of six students were chosen from each of the anxiety groups. However, only three students from level four actually confirmed their participation. The remaining student participants were between the ages of 17 to 21 year. Before entering the university level, these students studied English for

approximately six years. Yan and Horwitz noted that gender equality amongst the interviewees was considered prior to collecting data.

In the study, students stated they felt uneasy when the curriculum was too difficult to understand. The larger university class claimed that their needs when acquiring personal language was not satisfied. Yan and Horwitz (2018) describe their perspective of a classroom environment:

In order to change the classroom atmosphere, I think first of all, we need to rearrange the seats. If one wants to sit with certain people, let them sit together and form a discussion group. It's better to study this way. Don't let the teacher stand at the podium, and we sit down here - now it's almost still like this. (p. 158)

Other than seating arrangements, there are a variety of factors that impact students' educational experience in the classroom, including anxiety. This study focused on the relationship between anxiety and cultural aspects. While the type of seating arrangement was not specified, the Chinese students in this study did not fear making mistakes. Because of cultural anxiety, the label "Liking To Show Off" is shameful and dishonorable. The majority of the students were not accustomed to participating in class by raising one's hand to volunteer (Yan & Horwitz, 2008). Students had this pressure and intensity engraved in their heads. If they are successful in answering a teacher's question, then it is an honor. If they are wrong, however, then other students would make fun of them. As described by Yan and Horwitz, when students wanted to answer the question,

they would confidently make eye contact with the teacher. But when the answer was not clear, students would lower their heads and lower their gaze hoping not to be called on. This type of learning environment is quite intimidating to many students, especially for English Language Learners (ELLs). A classroom consisting of students with various levels of English proficiency should contain flexible seating arrangements that ensure a conducive learning environment.

Physical Classroom Arrangement

There are six factors that contribute to quality schools: environment safety, student expectations, physical environment, access to resources including technology and books, teaching instruction, and the use of varied teaching instruction (Duncanson, 2014). Classrooms are often designed with the consideration of both the number of students registered for the course and the functions to be carried out in the physical learning space. "A facility that works well for children and staff must be designed from the inside out, and also from the outside in, with structural evaluations" (Obaki, 2017, p. 2). When house designers and architects construct homes and buildings, they consider the overall safety of the users. The occupants' appreciation and sense of belonging are greatly influenced by their surrounding environment. Establishing a learning space that is conducive to student learning and promotes a sense of learning should be a collaborative effort amongst teachers, students, faculty, administrators, and even parents.

Poor classroom arrangements may affect students' free movement. Consequently, this may negatively influence social behavior problems. These issues often arise in spaces that are not well managed and contain little to no classroom guidelines. Obaki (2017)

describes that perhaps even mixed or complicated learning objectives occur as a result of poor classroom designs. He notes that effective classroom arrangement is essentially a space that encourages students to interact and socialize (Obaki). This can help students further enhance the development of language skills and positive social behavior. He claims that well-rounded, adaptable teaching practices include arranging a classroom environment in which students can spend adequate time in areas that interest them the most. An intentionally flexible classroom design can help craft students' overall character and identity, ultimately establishing that sense of belonging. As students acquire positive social behaviors in academic settings, social interaction is enhanced.

Sometimes teachers are not quite sure how to arrange their classroom. In fact, a study was conducted to observe the overall awareness in regards to classroom seating arrangement as an essential tool for classroom management. Structuring the classroom into a more conducive learning environment can be a resource that helps to prevent behavioral issues and intervene when necessary (Gremmen et al., 2016). However, the considerations that teachers make when designing their classroom spaces is not always clear. This study analyzes the seating arrangement considerations made by 50 different teachers in grades 4th, 5th, and 6th. The teachers were majority White and proceeded to higher vocational education. Some classrooms were mixed classrooms (4th-5th or 5th-6th grade classrooms) from middle-class communities. These classrooms were from regular elementary schools located in south-eastern Netherlands.

There are two different phases in the Gremmen et al. (2016) study: Phase 1 included interviews about teachers' overall goals and considerations for seating

arrangements, and Phase 2 included questionnaires about seating arrangements in general. The teachers responded with between 2-19 reasons for placing students in certain areas in the classroom. The majority of these considerations were for academic purposes. Results show that this particular sample of teachers preferred small group seating to enhance social interactions and collaborative group work (Gremmen et al.). Further, the questionnaires examined the differences amongst teachers including, but not limited to, gender identity, personal values, and even teaching experiences.

In the Gremmen et al. (2016) study, a questionnaire was used to analyze teachers' considerations for seating arrangements in their classrooms. Teachers used a 5-point Likert scale with 0 = least important and 5 = most important to rate 10 statements regarding particular factors when assigning seating arrangements. Note, in question number . . . , teachers were asked to indicate "How important do you think it is to place students with different academic levels close to one another?" (p. 770). Teachers then ranked the concepts in order from most to least important (1 = most important and 10 = least important). These statements measured a variety of categories: classroom management, social relationships, academic performance, and even physical characteristics.

The questionnaire also evaluated the desired seating arrangement preferred by the individual teacher. Using a 5-point Likert scale, teachers ranked an additional ten concepts pertaining to seating arrangements. This set of statements were focused on the ideas of behavior, interaction, and even motivation. One of the questions asked, "To what

extent do you think a seating arrangement contributes to better cooperative and helping behavior between students?" (p. 770). Teachers were then also asked to rank these 10 statements in order (1 = seating arrangement contributes the most, 10 = least contribution). The data was recorded with higher numbers indicating more importance.

The data from the Gremmen et al. (2016) study revealed interesting information regarding teachers' overall preference pertaining to seating arrangements. Approximately 24 teachers (48%) separated their students into clusters. Approximately 20 teachers (40%) divided their classroom into rows. Six teachers (12%) utilized an alternative seating arrangement that is different from groups and individual rows. The results showed the participants preferred the small group seating arrangements because it promotes student cooperation. Teachers who preferred rows stated that this particular design was to enhance a more quiet atmosphere where students can excel academically.

The results of this study also proved the particular seating arrangement that is preferred by the teacher. Approximately 35 teachers (70%) claimed that they preferred small groups. At the start of the school year, however, only 24 teachers (48%) actually utilized clustered groupings (Gremmen et al., 2016). According to the teachers, many claim that their students easily become distracted in groups. Teachers also explained that they prefer to start the year with desks and seats arranged in rows to get students to focus on their studies and the tasks at hand. Later on in the year, however, the teachers make the effort to transition their classroom environment into smaller groups. Although this study analyzed the general education population in elementary schools located in

south-eastern Netherlands, it does not, however, mention anything about English Language Learners.

Flexible seating arrangements are enhanced when teachers provide different workspaces for individuals, partners, groups, and even whole class instructions. Flynn (2017) discusses that seating options can permit the flow of movement and reduce disruptive behaviors. If the academic setting is unclear and/or crowded, students can run into one another. In turn, this can lead to off-task communication and disengagement with the core curriculum (Flynn). Flynn's study concludes that the most recurring positive feedback is when students express their appreciation for flexible seating.

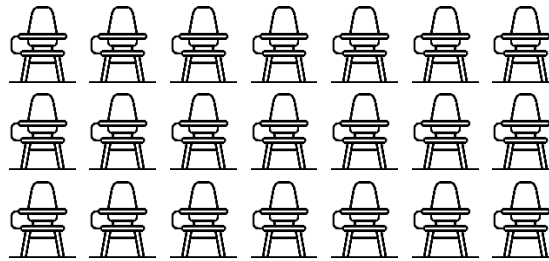
The opportunity to select their own seats encourages students to take responsibility for their own learning. "Not only were students allowed to choose their own seats, but they were also allowed to sit a variety of seating options" (Flynn, 2017, p. 12). Such flexibility in seating gives students the liberty to experiment and try different things. Students learn differently; therefore, creating a diverse, unique, and creative learning environment is vital.

Individual Rows

Historically, research has shown that seating arrangements organized in rows often promote on-task behavior (Collyer, 2021). Additionally, other studies have noted that seats arranged in rows empower teachers to manage behavior more effectively (Collyer). Traditional rows in the academic setting often emphasize the role of the teacher. Although this layout allows students to pay more attention, this seating

arrangement enhances a more teacher-centered learning environment (Correa et al., 2017) (see Figure 1). Students are less disruptive during lessons and tend to focus during teacher instruction. We must note that traditional rows, however, do not allow much liberty for students to interact and converse with one another. Regardless, Schreiber and Valle (2013) argue that seating arrangements can supplement social constructivist elements where students' overall social skills enable them to effectively collaborate in groups.

Figure 1. Traditional Rows



Note: This figure shows classroom seating arranged in traditional rows. Figure created by Gina J. Wells and Alvin Gutierrez. Row chair icon retrieved May 11, 2022 from <https://www.onlinewebfonts.com/icon/534435>

Teachers should note that determining if a student is demonstrating positive social behavior depends on communication, the required activity, and classroom expectations. For instance, to guarantee more on-task behavior for independent work, teachers should consider organizing students' desks and seats in more traditional rows and columns. As mentioned by Lotfy (2012), rows and columns are best used for individual activities and classroom tasks such as introducing new content or for test taking. Conversely, research has continuously shown that individual rows arranged for whole group instruction or a

one-size-fits-all type of setup is not appropriate for conceptual learning (Duncanson, 2014; Lotfy, 2012; Stapp, 2018). However, as mentioned by Collyer (2021), teachers must reconsider their classroom space and make certain that independent work should not be the traditional norm in present day classrooms.

Collyer's (2021) study aims to explore the importance of the social constructivist elements when grouped in clusters. Collyer explained his personal experiences in an alternative school. This is typically an educational institution to support students who have not been successful in regular schools due to behavioral or disciplinary challenges. During his observations, Collyer notes how seating arrangements influenced four boys' engagement when learning English. There were two small group sessions that occurred. While studying to be a teacher in a Higher Education Institution (HEI) in England, Colleyer learned from academic tutors and teachers that group seating and collaborative tasks will enhance the learning of English. The teachers' in Collyer's training school claim that students should silently sit in rows, especially during periods of extensive writing activities. Similar to Cervantes (2012) and Lotfy's (2012) findings, the tutors at Collyer's HEI also claimed that discussion is a crucial part in learning a foreign language and enhancing the overall social experience in the classroom. The idea of interactive discussion supplements the social constructivist theory as described by Vygotsky who claims that social interactions can enhance the acquisition of knowledge (Collyer). Vygotsky argued that social activity helps people craft individual comprehension and understanding of certain texts. There were four students who were analyzed in this study:

Simon, George, John, and Stephen (pseudonyms). These students are from a challenging school in England.

There were two lessons given in this particular study. In lesson one, the four students were required to identify three examples of figurative language: simile, metaphor, and personification. The four students were given a nonfiction extract about vegetarianism in which they were allotted about ten minutes to explain the writer's viewpoint through the examples of figurative language. Students were seated in individual rows in the first lesson facing the front. As Collyer lectured and provided guided instruction, students were required to pay attention to him. Lesson two was structured the same way as lesson one. However, instead of asking to identify examples of three figurative language, the lesson focused on the certain word choices and their overall effects to enhance the meaning of a nonfiction text. In lesson two, students were grouped together and Collyer joined the students throughout the entire lesson. Both extracts were mandated by Multi-Academy Trusts' (MAT) scheme of work. Each lesson delivered course content relevant to the reading section for the Assessment and Qualifications Alliance (AQA) English Language Paper Two and required the students to analyze and compare nonfiction texts.

During the teacher-led portion in lesson one, John shrieked with distracting noises. He also banged his head on the table during the lesson. George exhibited problematic behavior telling the class that he does not need individual assistance from the teacher and that he is the most clever student in the class. George also touched his peers,

distracting them from their work. George later stated, “*I don’t f***ing need English, mate. I’ve got an apprenticeship lined up after school*” (Collyer, 2021, p. 188). The other students were still observed but not noted as much since there was no major attention drawn from them. The second lesson was conducted three hours after the first lesson. Now sitting around a table, the four students sat facing one another.

While the overall learning environment was much better for the students, they still had confrontational and off-task behavior. John remarked, “*Oh this is new!*” (Collyer, 2021, p. 188). George remained confrontational. He firmly stated, “*You can change the tables around, but I still won’t give a sh***” (p. 189). Although George remained agitated, he participated in the activity. During the observation, it was noted that Simon and Stephen did not have any major behavioral concerns. Instead, they both sat without any sort of questions.

This particular study revealed the influence of clustered seating versus independent rows and their effects on four students. Even in small group interventions, seating arrangements have an impact on student learning. Collyer’s study raises further questions on how certain seating arrangements in the classroom can impact the general learning experience for students. Although it is common to allow group discussion in class activities, some educational institutions perceive independent work as the “right” way to comprehend new content (Collyer, 2021).

This study aimed to explore the importance of social constructivism when grouped seating arrangements are implemented. Both Collyer (2021) and Cervantes

(2012) noted that teachers should remain intentional and flexible when considering a classroom space that benefits all types of learners. The students in Collyer's study discussed how the accessibility to the lesson was enhanced through the provided seating arrangement. This, in turn, further demonstrated the relevance of the English language to their own lives. The level of engagement amongst four boys were observed to analyze the effects of grouped and individual seating.

Observations revealed that behavior was more negative when students sat in individual rows. However, their behavior improved when clustered seating was implemented (Collyer, 2021). Peer interaction is an essential resource that can facilitate grouped seating. Students begin to value their educational experiences and take ownership in their own learning. As Collyer discussed, grouped seating, rather than individual rows, helps to facilitate the social constructivist elements of learning.

As curriculum changes and students' minds develop, teachers must be ready to create an academic space that enhances student learning. Teachers not only have this responsibility for the general education classroom, but also for English Language Learners. Creating a balanced English experience for these students will help maintain Vygotsky's concept of social constructivism. The overall observations in this study suggest that students are more engaged and learn more effectively when they are grouped together (Collyer, 2021). The restriction of socially distancing our students often nurtures this environment of more independent, isolated work. Although it is still evidently important to abide by COVID protocols and social distance today, the power of group seating must not be forgotten.

Group Seating

The effectiveness of classroom seating arrangements relies on the overall goal of the activity. If the goal of the activity is to foster more interaction, Lotfy (2012) recommends for teachers to consider clusters and/or a horseshoe type of seating arrangement. In a beginner EFL classroom, Cervantes' (2012) research examined how communication varied based on where students were seated. There were two different teachers observed in the two separate classrooms: Pablo and Leo. Pablo worked with students in Group 1 and Leo worked with the students in Group 2. In a total of six class sessions, data was recorded and transcribed using Faerch and Kasper's taxonomy of communication strategies (1983, as cited in Cervantes). Group 1 had no specific seating arrangement. Student seating arrangements can influence both communication strategies and student participation. As suggested by Cervantes, group work encourages not only further collaboration and teamwork within an academic setting, but also establishes a sense of community in the classroom.

Students in Group 1 were spread out across the classroom. Students in Group 1 did not have many opportunities to move around and talk to other classmates. The students in Group 1 were not motivated to participate nor talk to one another. They only interacted with the other students in their small groups where they used their home language (Spanish) instead of the target language (English). When Pablo was around, the students then attempted to use English. Challenging activities were not provided by their teacher. Students solely focused on the three different sections in their books. Cervantes

(2012) noted that there was no additional interaction amongst other students nor higher-order thinking questions. Due to a lack of specific seating arrangements, Group 1 did not appear to be as interactive as Group 2 and, therefore, utilized the least number of communication strategies.

Further analysis of Cervantes's (2012) observation notes reveals that students in Group 2 proved to be more interactive. The students in this particular group sat closer to one another in clusters and therefore, had more opportunities to interact (see Figure 2). Lotfy's (2012) research shows that the physical design of the classroom where students have the liberty to move around and conduct work positively impacts on-task behavior as well as social interactions. Leo, who asked both lesson-related and some personal questions to encourage engagement and participation, frequently walked around the classroom.

Clusters are beneficial when grouping students based on individual needs and personal interests (Lotfy). This not only allows students to ask questions, but also permits the opportunity to discuss and explain their responses in further detail. Leo provided a variety of activities to keep students engaged throughout the lesson, as there was not much silence in between discussions. Although student-student interaction was limited, student-teacher interaction was clearly more prevalent in Group 2. Refer to Figure 2 to see an image of cluster seating.

Figure 2. Clusters/Group Seating



Note: This figure shows clusters/group seating in a classroom. Figure created by Gina J. Wells and Alvin Gutierrez. Chair icon retrieved May 11, 2022 from https://www.flaticon.com/free-icon/desk_163711

This particular study revealed that the lack of collaborative tasks and group work prevented the use of different communication strategies in Group 1 but that cluster seating did increase the level of communication, though to a limited degree, in Group 2. In both of the classrooms the results revealed mainly student-teacher interaction and some student-student interaction. During these interactions, students did not make any effort to use English when confronted by communication challenges. As described by Cervantes, because a language barrier is oftentimes a conflict in communication, students result in the comfort of their native language. The students switched to Spanish for ease of communication. However, switching back to their native language does not strengthen second language learning (Cervantes, 2012). Students deferred to their native language for the majority of their class time. The duration of practicing English, therefore, was limited. With the assumption that these students hardly use English outside of the classroom environment, teachers should emphasize language learning in the academic setting.

Cervantes (2012) found that other than the classroom, English Learners do not really have a space to utilize the foreign language that they are learning. While in the

EFL classroom, teachers should strongly encourage their students to practice in the targeted language with one another, preferably in small groups in cluster seating.

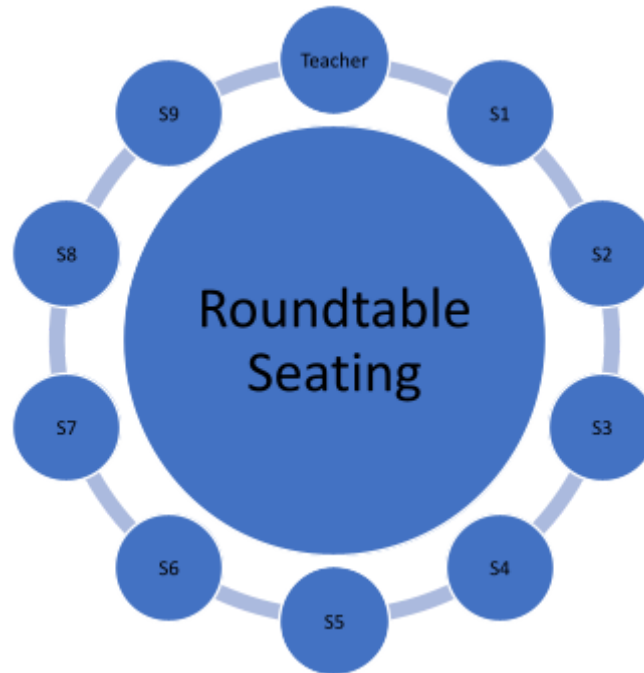
Teachers must remain cognizant of how and where students are placed in the classroom, especially for ELLs. By arranging the classroom space that centers student engagement and interaction, teachers are more likely to increase the chances of student participation (Cervantes).

The data in this study revealed that both the students as well as the teachers were not aware of communication strategies to facilitate learning. A lack of communication can lead to future communicative disruptions. This makes it more difficult to enhance interaction for English Learners to practice the foreign language. Teachers, therefore, have the responsibility to facilitate students' learning and utilize a variety of teaching strategies to accommodate the individual needs of their students.

Additional Seating Arrangements

While I addressed the most common seating arrangements utilized in classrooms, there are many other seating arrangements that teachers can incorporate in their classrooms. In addition to individual rows and clusters, teachers can experiment and be creative to ensure that a classroom setup is conducive to student learning. Using individual desks, a roundtable design may be created (see Figure 3). Single large tables are more prevalent in seminar-courses.

Figure 3. Roundtable Seating



Note: This figure shows the roundtable seating arrangement utilized in classrooms. Created by Gina J. Wells and Alvin Gutierrez using Microsoft Word.

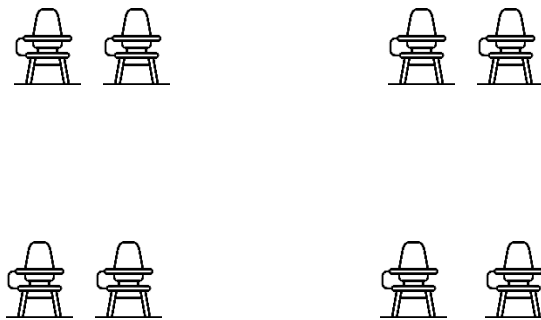
A setup where the teacher and students face one another encourages partner dialogue and even whole class discussions (Poorvu Center, 2021). Students are encouraged to not only interact with one another, but also view their own personal level of engagement differently. Students may feel a bit more connected to the content and core curriculum of the lesson, given a classroom setup where partner dialogue is enhanced. There are a variety of seating arrangements that teachers can use in the classroom. Pair and Horseshoe seating arrangements will be discussed in the next section.

Sitting in pairs is another type of seating arrangement that encourages social and emotional learning because students learn to work with one another (see Figure 4). Seated side-by-side, this arrangement enhances the importance of having a community of

learners where students are expected to work with one another (Poorvu Center, 2021).

When working together for a longer duration of time, it is recommended that pairs can be beneficial. Teachers should be mindful, therefore, of the many seating arrangements that exist while experimenting what works best for their own classrooms.

Figure 4. Pair Seating



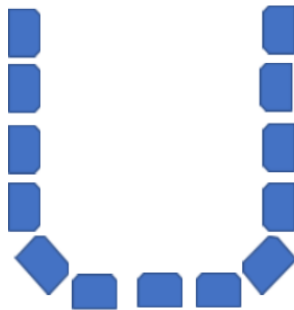
Note: This figure shows pair seating arrangements utilized in the classroom. Figure created by Gina J. Wells and Alvin Gutierrez. Chair icon retrieved May 11, 2022 from <https://www.onlinewebfonts.com/icon/534435>

The Horseshoe design, commonly referred to as the U-shaped seating arrangement, as described by Michaelson (2020), has the desks pointing toward a central focal point. There is usually a wide space opening inward which permits more physical movement in the center. This particular design promotes social interaction amongst the class. Because teachers are better able to observe their students, more one-on-one instruction and guidance can be provided. Additionally, Abiodun (2021) recommends the Horseshoe layout asserting that this design allows more student-teacher interaction. The teacher is more visible and can provide more one-on-one assistance to students.

Proponents of this arrangement state that the space gives students the liberty and freedom to participate and stay engaged.

As recommended in *Today's Classroom* (2014) blog, this design works well with physical activities that involve more movement like role-playing, for example. Abiodun (2021) also observed that the U-shape design is appropriate for lab demonstrations or the sciences in general. As mentioned by Michaelson, subjects that involve more discussions can benefit when the classroom seats are arranged in a horseshoe design. For instance, courses like the social sciences or academic literature the horseshoe configuration would be ideal (see Figure 5). This design not only enhances eye-contact, but may encourage students to engage in class activities and during discussion as participants are all welcomed into the space.

Figure 5. Horseshoe/U-shape Seating



Note: This figure shows the Horseshoe/U-shape design. Figure created by Gina J. Wells and Alvin Gutierrez using Microsoft Word.

Depending on the classroom size and the number of students, the horseshoe design may be difficult to utilize in the class. In larger classrooms, because students are farther apart, it can be more challenging to address the entire class and makes group work harder since the desks cannot easily be rearranged. Due to space and learning requirements, the *Today's Classroom* (2014) blog suggests that the number of participants for this particular seating arrangement should not exceed 24 individuals. Similar to the discussion in *Today's Classroom*, Abiodun (2021) claims that the Horseshoe design spreads students out considerably; therefore, it is quite difficult to promote group work since desks cannot be moved around easily. While the teacher may have a strong control of classroom management, it is noted that the group dynamic may be lost (Abiodun). Unlike a roundtable design, the U-Shaped layout may discourage side-talking. These are only a few of the many seating arrangements that have been implemented in the classroom. Teachers should be aware of their options and take their students' level of engagement, interests, and both their academic and social abilities into consideration when constructing a conducive learning environment.

Role of the Teacher

A classroom teacher who creatively plans a classroom space that fosters care and positive behavior encourages students to engage in their own learning. Obaki (2017) claims that using appropriate teaching methods and lively, energetic instructional tools permit a welcoming classroom environment. Through the encouragement of peer interaction, students develop further interest in their academics and seek joy in learning.

It is crucial for content specialists and resource teachers to advocate for their students. Teachers should work together with the appropriate language department to allocate resources for English Learners and provide ample opportunities to practice the foreign language. As recommended by Cervantes (2012), teachers should receive adequate training and additional programs to enhance not only the delivery of instruction, but also some of the best teaching strategies that engage all learners.

The teacher is usually the ultimate deciding factor for students' seating arrangements in the classroom. General classroom management skills are accompanied by classroom designs that encourage students to learn. According to Obaki (2017), when students actively engage in the process of trial and error effective learning actually occurs. Through posing questions and interactive activities, teachers can further engage students and enhance their reasoning abilities regarding the subject matter at hand. Teachers have the responsibility to raise students' awareness, encourage them to take risks, and provide them with models to communicate effectively (Cervantes, 2012). Proper seating arrangements and overall effective class structure can help facilitate this process. Teachers who engage students to be constructive in their responses and take ownership of their learning help students become resourceful advocates and more confident facilitators (Obaki). We must remember that a true educator is one who is a researcher and a lifelong learner.

Obaki (2017) describes the teacher as a researcher acquiring new information, giving guidelines on classroom expectations, and one who invites guest speakers to

address content-related topics with the class. The teacher also finds a variety of up-to-date and credible sources to support student learning. As a lifelong learner, the teacher is always willing to share the space with their students. The teacher must be able to adapt to their students' needs and be willing to partake in trial and error. A seating arrangement, for instance, that works for one class may not work for another.

Because students learn at different rates, teachers should be mindful of the overall classroom environment and the learning space that students partake in. As Obaki (2017) mentioned, social conflicts, disruptive behavior, and poor academic performance could be the result of an ineffective classroom setup. The overall role of the teacher in the classroom is to help establish a safe, welcoming, and conducive learning environment while providing exceptional leadership. Teachers should, therefore, take the structural design of a classroom's physical setup into careful consideration.

Organizing a classroom with flexible seating gives students the opportunity to connect and see the importance of academics in relation to social belonging. By intentionally planning students' seating arrangements in accordance with classroom tasks and activities, teachers can better manage the delivery of instruction (Cervantes, 2012). Students will not only interact more often and stay engaged during the lesson, but also work towards mastering the language learning objectives for the unit. Teachers, therefore, play a major role in making students feel a sense of connection in the classroom.

THE EFFECTS OF SEATING ARRANGEMENTS

Academic Performance and Seating Arrangements

Seating arrangements play a huge role in students' academic success. A greater amount of attention should be given to the overall structural setup of a classroom. Interestingly enough, research shows that rooms with greater space can result in higher test results and stronger academic performances overall (Duncanson, 2014). Keyes (2019) defines behavioral engagement as the social engagement and interaction that constructs students' academic experiences. These behaviors can include attendance, promptness, preparation with class materials, attentiveness, participation in instructional activities, engagement in class discussions, and even completion of homework assignments.

The Rajae Pitehnoe et al. (2020) study noted that a classroom's physical layout can significantly impact students' concentration levels. Rajae Pitehnoe et al. suggests that although students' level of engagement may be a factor, it is not the only influence in their learning. Research reveals that behavioral issues increase when students are expected to sit in individual rows for an extended duration. This oftens limits movement and breaks are restricted. This can lead to a lack of attentiveness and overall engagement during a lesson (Stapp, 2018). Teachers, therefore, must understand the student's perspective and consider how the physical layout of a classroom can help students stay engaged and ultimately improve their learning experience. If the expectation for students is to perform better academically or score higher on standardized testings, or to simply

improve their class behavior, then teachers should seriously consider creating more space in their classroom (Duncanson, 2014).

Although some classrooms may not be the most natural space for group interaction, it is recommended that culturally diverse schools promote intergroup contact (McKeown, Stringer, & Cairns, 2016). As cultural diversity becomes more and more prevalent in modern day classrooms, it is evidently crucial to understand class dynamics. The McKeown et al. study determined particular types of seating plans utilized by teachers. Three culturally diverse high schools in Ireland were observed. There were two 8th grade and two 10th grade classes in each school. Additionally, this study consisted of a mean class size of approximately 20 students. While the sample was chosen to compare schools, age groups were another factor that came into consideration during this study. Classes utilized in this study were registered courses and remained the same throughout the school year; therefore, it was fairly easy to maintain a consistent track of membership.

Within this study, the teachers and their students had to complete a questionnaire. The questionnaire used by McKeown et al. (2016) included motivation and choice for their desired seating. Ten out of 12 teachers completed the questionnaire. The variety of seating plans implemented were evident in the teachers' responses. In School 1, four class teachers actually participated in the questionnaire. Teachers claimed to have placed their students in areas for convenience, encouragement of mixing, and misbehavior (McKeown et al.). Further, in School 2, all four teachers who were asked actually

responded to the entirety of the questionnaire. However, it was observed that different sets of seating plans were referenced for organizational purposes. It is important to note that there was no separation at this time. Teachers in School 3 placed their students according to a specific seating plan centered on academic abilities.

Academically lower performing students were placed with higher achieving students. Compared to the other two schools, the collected data revealed that the majority of classes in School 3 were more segregated. McKeown et al. (2016) pointed out one common theme drawn from the teachers' response was that many of them expressed interest in utilizing a variety of seating plans. This study analyzed how seating plans played a role in potential segregation in the classroom. Looking at all three schools, there were different factors observed that influenced teachers' designs of certain seating plans. This includes designing particular seating plans on the basis of academic abilities, alphabetical order, and even gender consideration. Depending on the type of seating plan that was utilized, the mean scores showed when students are given the opportunity to choose their seats, there was no segregation on the premise of gender. In the consideration of seating arranged in alphabetical order, it appeared that segregation was least present. The classes that included a mixture of plans proved to be most segregated (McKeown et al.).

Once more, this study observed culturally diverse high schools in Ireland and reported the overall effects of group contact. Although researchers cannot fully conclude

that classroom segregation is related to negative perceptions towards outgroups, McKeown et al. (2016) claims that students tend to sit beside those who they feel most comfortable with. Because of close association, these observations clearly showed that students prefer to sit with whom they identify most strongly with. More training needs to be offered to teachers to increase awareness regarding the importance of classroom space and seating plans in general.

Social Behavior and Seating Arrangements

Research shows that effective classroom seating arrangements permit the liberty to move around freely to conduct work. This positively impacts students' on-task behavior as well as increases social interactions (Lotfy, 2012). Children's social behavior depends on many different factors including physical environment. Correa et al. (2017) states that participation in pairs or groups can essentially help reduce anxiety and promote student interaction. Although interaction plays a crucial role when teaching a foreign language, teachers should keep in mind that not all learners possess the ability to use the target language proficiently to participate in fluent conversations with the teacher and/or their peers. Students may feel great anxiety when attempting to converse in a language other than their home language. Consequently, teachers need to establish a conducive learning space even if that means rearranging a classroom setup.

There are mainly two types of interaction: active (oral or written) and receptive (auditory or read) (Correa et al., 2017). Because many students are greatly influenced by their native language, they may feel discouraged or reluctant to engage in discussion

utilizing the target language. As described by Correa et al., this fear or worry can permit students to feel insecure. If English is the target language, for example, the teacher must find a way to enhance student involvement. By providing a variety of opportunities for active participation, students are encouraged to try and make an effort to practice the target language. This said, classroom seating arrangements can be an agent involved in this process of both academic growth and social development (Correa et al.). Effective classroom seating arrangements conducive to student learning can be the gateway to academic success in the classroom and beyond.

To foster the flow of oral interactions, Correa et al. (2017) advises teachers to integrate a variety of seating arrangements in their classroom. If students participate more in class and teachers provide opportunities for oral conversation, students are more likely to verbally improve their language skills. Students become more curious, independent thinkers in spaces that allow free movement (Duncanson, 2014). Correa later notes that when it comes to assigned speaking tasks, students' participation has still been relatively low.

Some teachers, however, prefer to keep a classroom structure that only encompasses orderly rows. This is largely due to an enormous number of students in the class. As Correa (2017) mentioned, a classroom setup of orderly rows does not always permit student interaction. Teachers are constantly seeking different classroom management skills to maintain their class. A classroom structure designed to meet students' individual needs is a potential solution to effective classroom management.

Lotfy (2012) studied EFL students' on/off-task participation focusing on behaviors. She observed participation to see if tasks at hand and seating arrangements could foster on-task or off-task behaviors. There was a total of 43 students in an exploratory study consisting of two EFL classrooms. The study incorporated both questionnaires and reflective papers upon which students shared their responses. In addition, video recordings from every class session were referenced. These methods of data collection helped to observe whether students remained on-task or off-task in various classroom seating arrangements.

Lotfy (2012) noted that seating arrangements in the classroom should be a priority that encourages on-task participation and involvement. This finding was concurred by Gremmen et al. (2016), and Correa et al. (2017). Additionally, an analysis of data reveals that students seated in semi-circular rows were more attentive than students seated in traditional, straight rows (Lotfy). Further analysis reveals that students' preferred seating arrangements depended on their personal views of how involved and engaged they were in class. Lotfy's research revealed the effects of students' classroom behavior in relation to different seating arrangements. This included individual rows, clustered seating, and even arrangement in circles.

Lotfy (2012) observed certain behavioral characteristics such as hand-raising, listening, discussion comments, and even withdrawal in attention span. The results showcased that in circles, students were more encouraged to participate in oral response than sitting in traditional rows and columns (Lotfy). Despite the implementation of

different seating arrangements, the results revealed that there were no major differences in behavior and even in class discussion. Data from Lotfy's study showed that circular arrangements granted a larger number of on-task behavior than did in the arrangement of rows and columns. It was also noted that clusters resulted in more hand-raising and on-task behaviors, compared to the physical setup of traditional rows. Therefore, unlike the circular-shaped structure, withdrawals and off-task behavior were more prevalent in the arrangement of rows and columns (Lotfy).

Within the same study, Lotfy (2012) also analyzed the effects of student behavior as a result of the U-shape/horseshoe structural type of format. Lotfy found that this arrangement allowed students to participate in more interaction amongst one another. Teachers also experienced more interaction with their students. The U-shape arrangement, therefore, enhanced student learning by contributing to the students' on-task behavior. When students have a variety of opportunities to exchange information and share ideas from one another we ultimately maximize their learning space.

Although this data analyzes the various effects of seating arrangements on student learning and behavior, there is limited research done specifically on how seating arrangements impact students' participation and level of engagement in EFL classrooms. As Lotfy (2012) mentions, almost no research has been conducted regarding this matter in Egypt. There is a gap in research when analyzing students' preferred seating arrangements while monitoring their actual rate of participation. In the Egyptian context, it is crucial to explore this gray area of class structure and its overall impact on student

learning. Despite a teacher's ability to manage the classroom or the teacher's experience in professional training, it is clearly evident to consider how something as simple and inexpensive as rearranging seats can significantly influence students' learning experience in the classroom.

CONCLUSION

An open environment that promotes active learning ultimately invites students to move around (Duncanson, 2014). Classroom seating arrangements are important factors in students' learning. Where students sit can ultimately impact both their academic development as well as their social interaction. As pointed out by Rajae Pitehnoe et al. (2020), there is little exploration in regards to how the physicalities of a classroom environment influence ELLs' ability to acquire content and language knowledge, despite the seemingly increasing body of research on classroom arrangement. Teachers can help create a conducive learning environment for their students by being aware of the overall layout of their classroom and use designs that are not only conducive to student learning, but also beneficial to all types of learners, including ELLs.

Gremmen et al. (2016) found that low physical distance in seating arrangements can enhance interpersonal contact between students. Such interactions can positively influence the social perceptions of their classmates and enhance the acquisition of language for ELLs (Echevarria, Vogt, and Short, 2016). According to Gremmen et al., peer relationships are valuable sources of individual behaviors. Further, Echevarria et al. found that in relation to ELLs social interactions within the classroom are important to

language learning. In an academic setting, peers can ultimately reinforce positive behaviors, reduce negative perceptions, and support language acquisition. The distribution of seats can foster different levels of classroom interactions. Although some research indicates that traditional rows can prevent students from being more disruptive in class and help students pay more attention, Correa et al. (2017) argues that seating arrangements in clusters or groups can essentially promote healthy discussion and increase student participation. Teachers, therefore, should be mindful where they place their students and should be intentional when constructing a classroom environment that permits social engagement.

Teachers need to be more aware of the impacts of classroom seating arrangements. Flexible classroom seating arrangements provide the potential for improving intergroup relations. More meaningful intergroup contact will positively impact students' views of each other (McKeown et al., 2016). Additionally, scholars argue that culturally diverse schools can help facilitate natural friendships and increase diversity awareness in today's classrooms. Regimented seating restrictions such as traditional or U-shaped rows should be reconsidered as they do not support these natural friendships. The simple, inexpensive act of rearranging seats in the classroom can help facilitate discussion about cultural awareness. Teachers, therefore, must be prepared to maintain an open mindset when meeting students' individual needs, even when considering how students sit in the classroom.

While my research contributes to this important aspect of teaching, more research is needed. It is critical for teachers to continue exploring the variety of seating arrangements that enhance students' academic and social success. As McKeown et al. (2016) stated, where students are seated in the classroom may ultimately impact their educational experience. Having a general outline for seating arrangements can serve as a guiding tool for many teachers. With an increase of racial and ethnic diversity in the classroom, teachers must consider flexible seating arrangements.

On a more global scale, the battle for groups to understand one another in our society is important (McKeown et al.). Classrooms today are a microcosm of our society. As educational institutions attempt to redefine their cooperative learning strategies, the practices of seating arrangements is a major challenge (Lotfy, 2012). In an effort to promote cooperative learning, teachers should have students sit in circles or clusters which will facilitate group discussion rather than traditional rows which inhibit interaction.

According to Duncanson (2014), "School and classroom environments that accommodate the needs of all students while promoting student thinking and individualization are necessary for opportunity to learn" (p. 31-32). Ample space in a classroom promotes more hands-on interaction and creativity. Teachers, therefore, are encouraged to utilize several different seating arrangements based on the tasks at hand. Duncanson also noted that when teachers increased the space in their classrooms, several

positive changes naturally occurred. This includes the overall improvement of classroom organization and even student behavior. Not to mention, when the classroom space appeared to be cleaner students were better able to manage their own activities and engage with the lesson.

My research explored the impact of seating arrangements on classroom environments in relation to both students' academic performance and social behavior. With the consideration of environmental factors, scholars have noted that seating arrangements do influence students' overall social behavior. However, little has been concluded regarding the environmental impacts of students' learning within the actual classroom space, especially for ELLs. While my conclusions, based on my data analysis, are evidently crucial to the academic setting, more research is needed pertaining to seating arrangements and its relation to student learning. There is no conclusive research stating that there is an ideal seating arrangement in the classroom. In the meantime, it is evidently critical to be aware regarding the influence of seating arrangements when supporting the overall academic and social development of ELLs.

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