



The Impact of Classroom Seating Arrangements on Student Engagement in EFL Classrooms: A Case Study at a Libyan Preparatory School

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Abstract

This study employs a case study design to provide an in-depth understanding of the impact of classroom seating arrangements on EFL students' engagement. Grounded in engagement theory and communicative language teaching, the study employs an explanatory mixed-methods approach, where quantitative data were collected using structured classroom observations, followed by qualitative data from a semi-structured teacher interview to explain the observed patterns. The study focuses on a single ninth-grade EFL classroom consisting of 30 students taught by one teacher under two different seating arrangements: traditional row seating and cluster group seating. Quantitative data were gathered using time-sampling techniques to measure on-task behavior, while qualitative data explored the teacher's perceptions of engagement, feasibility and classroom management. The findings indicated that while row seating supported initial behavioral control, cluster resulted in with higher levels of student engagement, although practical constraints such as classroom space and furniture limited its consistent implementation. The study stressed the importance of aligning classroom organization with pedagogical goals and contextual realities.

Keywords: classroom environment; seating arrangements; student engagement; EFL; Libya

1. Introduction

Student engagement is an important factor for successful classes in schools. It is generally seen as a combination of three parts: behavior (how students participate), emotion (how they feel about their work), and cognition (how much effort they put into thinking). Fredricks et al. (2004) argue that these three parts works together to show how much a student is willing to learn. Many researchers, such as Reschly and Christenson (2012), Skinner and Pitzer (2012), and Wang et al. (2017), have pointed out that engagement is especially important when learning a new language. In English as a Foreign Language (EFL) classes, engagement happens when students have real chances to talk and share ideas with one another. As Evnitskaya and Berger (2017) suggest, the way students interact in class depends greatly on whether they feel comfortable and ready to participate in activities.

The physical arrangement of a classroom often has a bigger impact on learning than people realize. Specifically, where students sit determines how well they can see, hear, and talk to both the teacher and their classmates. Fredricks et al. (2004) describe the classroom layout as a “silent curriculum.” They use this term because the physical space naturally shapes how students behave and engage, even if the teacher does not give specific instructions on how to interact. Recent studies have looked closely at this idea, showing that the way a room is designed has a direct effect on how well students pay attention and stay engaged during lessons.

Research on active learning spaces shows that flexible seating helps students work together and participate more in class. As Brooks (2011), Barrett et al. (2015), and Byers et al. (2014) argue, being able to move furniture is a key part of student-centered teaching. Usually, sitting in traditional rows makes the teacher the center of attention. In contrast, arrangements like circles or small groups (clusters) make it easier for students to talk to one another and learn through collaboration.

In Libya, recent changes to the school curriculum focus more on helping students improve their English communication skills. However, traditional teaching styles and rigid classroom layouts often get in the way. In many preparatory schools, teachers find it difficult to change how desks are arranged because the furniture is heavy, classrooms are crowded, and resources are limited. These physical barriers make it hard to reach the goals of communicative language teaching. Even though moving desks is a low-cost change, there is still very little research in Libya on how seating affects student engagement in EFL classes.

To help fill this gap, this study examines how two common seating layouts, traditional rows and cluster groups, affect student engagement in a Libyan preparatory school. This research is an exploratory case study. Its goal is to provide specific details on how the physical setup of a classroom can either help or hinder student engagement, especially in schools with limited resources.

2. Literature Review

2.1 Classroom Seating and the Physical Learning Environment

Researchers have known for a long time that the way a classroom is organized is a vital part of the learning environment. Weinstein (1979) was one of the first to show that classroom space acts as a "hidden" teaching tool. The layout affects how students behave, how well they pay attention, and how they talk to one another. Ultimately, seating arrangements decide how easily students can see and move around, which helps the teacher manage the class and deliver lessons more effectively.

Later studies have shown that traditional row seating usually supports teacher-centered learning. This is because rows point everyone toward the front of the room. As Marx et al. (1999) found, this arrangement keeps the focus on the teacher but often makes it harder for students to talk to their peers. While rows might help reduce some distractions, they can also prevent students from working together and being fully active in their own learning.

On the other hand, different arrangements like clusters, circles, or U-shaped layouts are better at encouraging social interaction and engagement. Rosenfield, Lambert, and Black (1985) discovered that students sitting in groups participated more and asked more questions compared to those sitting in rows.

These findings show that physical space has a major impact on communication. This is especially important in classes like language learning, where students must interact with each other to succeed.

2.2 Seating Arrangements and Student Engagement

Student engagement is a complex idea that includes three main parts: behavior, emotion, and how students think about their learning. As Fredricks et al. (2004) explain, behavioral engagement as a very important factor for researchers to watch in the classroom. The way desks are arranged can either help or hurt this engagement because the layout affects how close students are to each other, whether they can make eye contact, and how they interact.

In their review of various studies, Wannarka and Ruhl (2008) found that there is no single "best" seating plan for every situation. Instead, the best arrangement depends on the goal of the lesson. Later studies by researchers like Fernandes, Huang, and Rinaldo (2011) and Cheryan et al. (2014) supported this idea. They found that sitting in groups works best for activities where students need to talk and work together. On the other hand, traditional rows can be better for individual work because they help the teacher manage the room and keep students focused on their own tasks. While rows are helpful for tests or quiet work, sitting in groups leads to much more interaction during group projects.

More recent research shows that flexible seating helps students take more responsibility for their own learning. This is especially true when a lesson requires a lot of discussion or problem-solving. While most of this research has focused on universities, the basic idea is still true for middle and high schools: being close to others and facing them makes a big difference in how much students talk and engage with the lesson.

2.3 Seating Arrangements in EFL Classrooms

In EFL classrooms, engagement is closely related to chances to use language in a meaningful way. Communicative Language Teaching stresses that interaction, figuring out what words mean together, and working together with other students are all important parts of learning a language. In theory, physical seating arrangements that make it easier for students to talk to each other in person are in line with CLT principles.

Research in EFL settings has shown that where students sit directly affects how often they speak and how engaged they are. In many developing countries with limited resources, infrastructure problems make it difficult to use new teaching methods. As Kirkpatrick (2012), Wedell and Malderez (2013), and Alrabai (2016) point out, this highlights the need for low-cost strategies that can be easily used in any classroom.

Studies specifically focused on EFL classes show that sitting in groups helps students support one another. Storch (2013) and Sato (2017) found that group seating gives students more chances to practice speaking and makes them feel less nervous during oral activities. Furthermore, Zarrinabadi and Tanbakooei (2016) argue that students in groups are more likely to stay interested in speaking tasks compared to those sitting in traditional rows facing the teacher. Group seating is especially helpful for shy students who are afraid to speak in front of the whole class. Despite these benefits, many classrooms in developing countries still use traditional seating because the rooms are not designed for flexible layouts.

There is currently very little research on how the physical classroom environment affects student engagement in Libya. Most existing studies focus on the curriculum or teaching methods rather than the physical space. This gap shows the need for research that looks at how small, inexpensive changes—like moving desks—can improve student engagement without requiring a lot of money.

2.4 Research Gap

There are still a number of unanswered questions despite prior research showing a connection between seating arrangements and student engagement. First, there is not much empirical data from Libyan EFL preparatory schools. Second, there are not many studies that look at seating arrangements as a useful intervention in settings with limited resources. Lastly, there are not many exploratory case studies that integrate teacher perspectives with observational data to comprehend implementation difficulties as well as pedagogical advantages. By investigating how seating arrangements affect student engagement in a Libyan EFL classroom, the current study aims to fill these gaps.

3. Methodology

3.1 Research Design

This study used an exploratory case study as a research method. A case study was chosen because the goal was to examine seating arrangements in one specific, real-world school rather than trying to apply the results to every classroom. As Creswell and Creswell (2018) explain, case studies are very useful when research focuses on how things work in a natural classroom setting and aims to provide deep insights into those practices.

The study combined quantitative classroom observations with qualitative teacher interviews. By using this mixed-methods approach, the researcher was able to compare actual student behavior with the teacher's own experiences. This helped create a complete and more detailed picture of the results.

3.2 Research Context and Participants

The study took place at a preparatory school in the Libyan municipality of Al Ajilat. To protect the school's privacy, a pseudonym is used instead of its real name. As Creswell and Creswell (2018) suggest, using a specific site allows for a deeper understanding of real-world issues. The classroom is typical of Libyan public schools, featuring large class sizes, fixed schedules, and limited space.

The participants in this study included:

- Students: One ninth-grade class made up of thirty students selected purposefully.
- Instructor: One English teacher with ten years of experience teaching at the preparatory level selected purposefully.

This specific class was chosen because of its accessibility and the teacher's willingness to try different seating layouts. By using the same teacher and the same group of students for both seating arrangements, it was easier to ensure that the results were not affected by changes in the group or the teaching style.

3.3 Instructional Conditions

The researcher observed two 45-minute English classes. To keep the study fair, the same teacher taught both lessons using the same learning goals and teaching methods. Both classes covered the "Environment and Nature" unit from the curriculum. As Creswell and Creswell (2018) note, keeping these instructional factors consistent is important for ensuring that the results accurately reflect the changes in the classroom environment.

The two seating layouts were organized as follows:

- Row Seating (Control Condition): Students sat in traditional rows facing the front of the classroom.
- Cluster Seating (Experimental Condition): Students were seated in small groups of four to five to encourage them to talk to one another.

The lessons followed the regular school schedule. Because of time constraints, it was not possible to switch the order of the arrangements. However, the teacher made sure that the tasks and the way they were taught remained the same in both lessons to ensure the comparison was accurate.

3.4 Data Collection Instruments

3.4.1 Classroom Observation Checklist

To measure student engagement, the researcher used an observation checklist adapted from the work of Bakeman and Gottman (1997) and Fredricks and McColskey (2012). In this study, being "on task" meant that students were speaking English, listening carefully, answering the teacher, talking with their peers about the lesson, or completing their assignments. On the other hand, being "off task" included behaviors like not paying attention, talking about unrelated topics, or not participating in the lesson.

During each lesson, the researcher recorded observations every five minutes. At each of these intervals, the researcher counted how many students were showing on-task behavior. This method provided a clear and organized way to measure and compare student engagement in both the traditional row seating and the cluster group seating.

3.4.2 Teacher Interview

After the classroom observations were finished, the researcher conducted a semi-structured interview with the teacher. As Creswell and Creswell (2018) suggest, this type of interview allows the researcher to follow a plan while still being able to ask follow-up questions. The discussion focused on several key topics:

- Any changes the teacher noticed in how students participated.
- The challenges of managing the classroom in different layouts.
- How well the different seating arrangements worked in practice.
- The difficulties caused by the limited space and furniture in the school.

The teacher gave permission for the interview to be audio-recorded. After the meeting, the recording was transcribed so it could be carefully analyzed alongside the observation data.

3.5 Validity and Reliability

To make sure the observation checklist was accurate, two colleagues with experience in EFL teaching and research reviewed it. Based on their feedback, a few small changes were made to make the signs of engagement clearer. To keep the process consistent, the same researcher performed the observations using the same time intervals and rules for both lessons.

While it was not possible to have a second observer check the results, the study used very clear definitions of student behavior and a set schedule for observations to keep the data reliable. As Creswell and Creswell (2018) explain, using both quantitative and qualitative data—known as triangulation—further strengthens the results and ensures a more balanced view of the classroom.

3.6 Data Analysis Procedures

The numerical data from the observation checklist were analyzed using simple statistics, such as percentages and how often students stayed on task. The researcher calculated the average engagement rates for each seating plan to make it easy to compare them.

The information from the teacher interview was analyzed by looking for common themes. After reading the interview transcript several times, the researcher identified repeated ideas related to how easy the seating was to use, classroom management, and student engagement.

Because this study was exploratory and involved a small group, the analysis focused on finding patterns and trends. The goal was not to make broad statistical claims, but to understand what actually happened in this specific classroom.

3.7 Ethical Considerations

Before any data was collected, the school administration gave formal approval for the study. The participating teacher gave informed consent, and students were observed during their normal lessons so that their learning was not interrupted. As Creswell and Creswell (2018) emphasize, protecting the privacy of participants is essential in research; therefore, no student names were recorded, and all information was kept anonymous. The study followed strict ethical rules to ensure that participation was voluntary and that all data was handled responsibly.

4. Results

4.1 Quantitative Results: Classroom Observation Data

The researcher gathered data from two 45-minute English classes using two different layouts: traditional row seating and cluster group seating. To measure student engagement, the researcher used time-sampling observations every five minutes, focusing on how many students were staying on task. Table (1) shows the number and percentage of students who focused on their work during each observation period for both seating arrangements.

Table 1. Engagement Rates under Row and Cluster Seating Arrangements (N = 30)

| Time Interval | Row Seating (On-Task) | Row Engagement (%) | Cluster Seating (On-Task) | Cluster Engagement (%) |
|----------------------|------------------------------|---------------------------|----------------------------------|-------------------------------|
| 0–5 min | 28 | 93% | 25 | 83% |
| 5–10 min | 25 | 83% | 27 | 90% |
| 10–15 min | 20 | 66% | 28 | 93% |
| 15–20 min | 18 | 60% | 26 | 86% |
| 20–25 min | 15 | 50% | 25 | 83% |
| 25–30 min | 18 | 60% | 24 | 80% |
| 30–35 min | 20 | 66% | 23 | 76% |
| 35–40 min | 15 | 50% | 22 | 73% |
| Average | 19.8 | 66% | 25.0 | 83% |

The analysis shows a clear difference in engagement between the two seating layouts. On average, students in the cluster seating arrangement were engaged 83% of the time. In contrast, those in traditional row seating had a lower average engagement rate of 66%.

Looking at how engagement changed during the 45-minute lesson reveals even more differences. In the row seating setup, student focus was highest at the start of the class but began to drop after the first fifteen minutes. This was especially true for students sitting in the back of the room. In the cluster seating setup, however, engagement levels stayed mostly steady throughout the entire lesson. Students in groups were especially active and focused during tasks that required them to talk to one another.

These results suggest that while row seating might help the teacher keep control at the very beginning of a lesson, cluster seating is better at keeping students interested and involved for a longer period of time. This shows that the physical layout of the room plays a major role in keeping students' attention.

4.2 Qualitative Findings: Interview with Teachers

The information from the interview helped explain why engagement changed during the lessons and whether these seating plans are easy to use in a real classroom.

Theme 1: Better Engagement and Peer Interaction

The teacher noticed a clear change in student behavior during the cluster seating lesson. Students who usually did not like to speak became much more involved in class activities when they sat in groups. For shy students, working with their peers seemed to lower their anxiety and encourage them to take part. The

teacher also noted that students were more willing to practice speaking English in small groups, suggesting that sitting in clusters creates a more supportive environment for language learning.

Theme 2: Management and Infrastructure Challenges

Despite the benefits, the teacher pointed out several problems with using cluster seating. Because the desks were heavy and the classroom was small, moving the furniture took a lot of time and caused some disruption. Additionally, the crowded room made it difficult for the teacher to move around and monitor each group effectively. These challenges show that while cluster seating can increase participation, it is hard to do consistently without better furniture and support from the school.

4.3 Summary of Findings

The combined quantitative and qualitative results of this study show that classroom seating arrangements have a significant impact on student engagement in the Libyan EFL context. The findings are summarized below:

a. Increased and Sustained Engagement

The quantitative data revealed a clear advantage for cluster seating, which produced an 83% average engagement rate, compared to only 66% in traditional row seating. Beyond the higher average, the temporal analysis showed that cluster seating helped maintain student focus throughout the entire 45-minute lesson. In contrast, engagement in row seating peaked early but dropped significantly after the first fifteen minutes, particularly among students sitting at the back of the classroom.

b. Improved Oral Participation and Reduced Anxiety

The qualitative findings from the teacher interview supported these numbers. The instructor observed that sitting in groups created a more supportive environment, which was especially beneficial for shy or reluctant students. These students were more likely to practice speaking English and participate in class activities when they were close to their peers. This suggests that the physical proximity provided by cluster seating can reduce student anxiety and encourage communication.

c. Balancing Control and Interaction

The study highlights a trade-off between different layouts. While row seating appeared to support better behavioral control and focus at the very beginning of a lesson, it did not sustain student interest. Cluster seating proved much more effective for active, communicative tasks and long-term participation, though it required more effort from the teacher to monitor the groups.

d. Significant Practical Barriers

Despite the clear pedagogical benefits of cluster seating, the study identified major challenges to its regular use. The teacher highlighted that the heavy, fixed desks and the limited space in the classroom made rearranging the furniture time-consuming and disruptive. These infrastructure issues, combined with large class sizes, make it difficult for teachers to implement flexible seating strategies without better furniture and more support from school administration.

5. Discussion

The goal of this study was to examine how classroom seating affects student engagement in a Libyan EFL school. The results show that seating is not just a neutral way to organize a room; instead, it is a powerful teaching tool that shapes how students behave and interact.

According to the engagement theory by Fredricks et al. (2004), behavioral engagement—which includes participation and staying on task—is the best way to understand the differences between row and cluster seating. In this study, engagement in row seating was high at first but dropped over time. This suggests that while traditional rows might help with short-term focus and following rules at the start of a lesson, they are less effective at keeping students interested for the whole class.

In contrast, cluster seating led to more consistent engagement. This supports the idea that sitting face-to-face and being close to others encourages students to talk and participate more. By placing students in small groups, cluster seating shifted the focus away from the teacher and shared the responsibility for learning more fairly among the students. These findings align with previous research by Rosenfield et al. (1985), Marx et al. (1999), Storch (2013), Brooks (2011), and Byers et al. (2014), which all showed that group-based seating increases interaction.

This study adds important evidence from the Libyan EFL context, which has not been widely researched before. Unlike many studies done in schools with plenty of resources, these findings show how seating works even when a teacher has to deal with heavy furniture and limited space.

From a teaching perspective, cluster seating fits perfectly with the goals of Communicative Language Teaching (CLT). CLT focuses on students working together and using the language to communicate. As this study shows, the physical layout of the room can either help or hinder this. Row seating often forces the teacher to do most of the talking, while cluster seating creates opportunities for students to help each other and practice speaking, which is essential for learning a new language.

However, the teacher's feedback highlighted that infrastructure is a major problem. Large classes and heavy, fixed desks make cluster seating difficult to use every day. These challenges match what other researchers have found in resource-limited settings, where physical constraints often stop teachers from trying new methods.

Overall, the results suggest that while cluster seating improves participation, it needs to be adapted to fit the local environment. Instead of always using full clusters, other layouts like U-shaped or semi-circular designs might be a better compromise. These arrangements can encourage students to interact while making it easier for the teacher to manage the room and move around.

6. Conclusion

This exploratory case study examined how classroom seating arrangements affected student engagement in an EFL preparatory school in Al Ajilat, Libya. The results show that seating is not just an organizational choice; it is a significant teaching factor that directly influences how students participate during English lessons.

The observation data reveals that traditional row seating helps with initial attention and behavior at the start of a lesson. However, student participation tends to decrease over time in this layout. In contrast,

cluster seating led to higher and longer-lasting levels of engagement, particularly for speaking tasks and group work. These findings support the idea that the way a classroom is organized can either create or limit opportunities for students to communicate.

By combining classroom observations with the teacher's perspective, this study provides unique insights into how low-cost changes to a classroom can support language teaching, even in schools with limited resources. Ultimately, physical classroom organization should be viewed as an essential part of a teacher's lesson planning rather than an afterthought.

6.1 Implications for Practice

The findings offer several practical suggestions for EFL teachers and school administrators in similar educational settings:

For Teachers: Using flexible seating can greatly improve student participation during communicative tasks. If full cluster seating is too difficult due to space, modified layouts like U-shaped or semi-circular designs may be a good compromise. These arrangements encourage interaction while still allowing the teacher to maintain control of the classroom.

For Administrators: The study highlights that classroom furniture and layout are vital to improving teaching and learning. Investing in lightweight, movable desks would allow teachers to try more interactive teaching methods without needing expensive structural changes to the building.

6.2 Implications for Future Research

This study emphasizes the need for more research into how physical classroom environments affect learning in understudied areas like Libya. Future research should:

- Use longitudinal designs to see how seating affects learning over a longer period of time.
- Include larger and more diverse groups of students to see if the results are the same in different schools.
- Combine observations with student surveys and test scores to get a more complete understanding of how seating impacts academic achievement.

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