

Transforming classroom dynamics: A comparative analysis of U-style, V-style, and circle innovative teaching techniques



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ABSTRACT

This research paper examines three distinct teaching methods—U-Style, V-Style, and Circle—and analyzes their impact on student participation, collaboration, and learning outcomes. The study involved 30 students enrolled in a Tamil degree program, with the seating arrangement used in a Tamil classical literature class. Both qualitative and quantitative methods were used to evaluate the impact of these seating styles. Data was collected through observation, tests, and student feedback. The findings suggest that cluster seating is particularly effective in creating a student-centered classroom. This setup promotes collaborative learning and improves student engagement and learning outcomes. The study emphasizes the importance of well-planned seating arrangements in the classroom. Using cluster seating can help create an active and cooperative learning environment, supporting the goals of modern education.

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1. Introduction

The traditional lecture-based teaching model is gradually giving way to more interactive and student-centric approaches. The U-style, V-style, and circle teaching techniques are emerging as noteworthy strategies that foster collaborative learning, critical thinking, and enhanced student participation. The specific classroom tasks offer opportunities for students to engage with this content in ways that make it meaningful and accessible. Teacher interaction with students is correlated to student seating location (Woodcock and Reupert, 2024; Evertson and Emmer, 2017; Rogers, 2011; Weinstein and Romano, 2014). The classroom is a place where teachers help children to grow in knowledge and personality. For effective teaching and learning to take place, the classroom must be well managed by the teacher. Of all the variables affecting student learning, classroom management has the most effect on student achievement. The primary aim of classroom

management is to maintain a positive, productive learning environment. The objective of classroom management is not to keep children docile and quiet but to be able to keep them meaningful and engaged in worthwhile and appropriate learning activities. From the researcher's perspective, the proactive classroom involves the measures teachers employ to establish an atmosphere conducive to supporting both academic and social-emotional learning (Duan et al., 2024). Effective classrooms are developed through proactive classroom management. It requires forethought, planning, and advanced consideration of the integrated systems that will support students' social, emotional, and cognitive learning. It involves the process of creating the setting, decorating the room, arranging the chairs, speaking to children, and handling their responses.

This experimental research aims to investigate and compare U-style, V-style, and Circle seating arrangements, focusing on their features, benefits, challenges, and relevance in different educational contexts. By thoroughly analyzing these methods, the study intends to help educators make informed choices about adopting these innovative teaching setups. Conducting this study in my literature class is appropriate, as literature promotes collaborative learning. Studying literature not only helps reduce stress but also stimulates imagination, supports cognitive health, enriches vocabulary, strengthens writing, improves communication, and encourages

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critical thinking. Tamil classical literature, chosen for its rich cultural background, allows students to explore cultural nuances, historical contexts, and linguistic complexities. It encompasses a wide variety of forms, from Sangam poetry to epics like *Silappatikaram* and devotional works like the *Tirukkural*. By engaging with these texts, the study aims to improve students' language skills in reading comprehension, interpretation, and vocabulary growth. Additionally, examining Tamil classical literature provides historical insights, helping students understand the social, political, and cultural settings of the periods in which these works were created. Engaging with such literature also offers cognitive benefits by encouraging critical thinking, analytical skills, and overall mental development. Students are challenged to interpret metaphors, unravel symbols, and understand allegories, refining their intellectual abilities and deepening their appreciation for literary complexities.

The idea for this study came from observations during a writing exercise with around a hundred elementary students divided into five groups. Initially, traditional row seating was used, but this led to significant disorder. On the second day, seating arrangements were modified, resulting in noticeable improvements in teaching and learning over the next five days. In traditional seating arrangements, collaboration is limited because students face each other's backs. Group involvement is typically moderate since traditional layouts only support one-way communication between students and the teacher. Students seated in the middle or back can become distracted, often engaging in side conversations during lectures. This arrangement mainly benefits those seated at the front, leading to unequal participation opportunities. Teachers may need sound systems to keep students at the back focused, and monitoring middle and back rows is challenging.

Initially, I believed that university students, as adults, did not need classroom setup changes. Being independent learners, I assumed the traditional stadium seating would suffice. However, as Tamil literature classes continued in this format, I observed a decline in concentration. Only a few students, usually at the front, actively participated, while those in the back rarely engaged or even attended. This experience made me reconsider and recognize that even at the university level, classroom environment and seating arrangements significantly influence student participation and focus. Creating a more effective learning environment will empower students to pass on knowledge to their future students. Therefore, rethinking our approach is essential.

2. Literature review

For a long time, classrooms used to have students sitting in rows, and that made them more focused on their tasks. Studies from 1995 and 1978 showed that this traditional setup led to better behavior and

more completed independent work. However, around 2001, things changed. Instead of rows, classrooms started using small groups or clusters. This shift was based on research by Paton, Snel, Knight, and Gerken. Nowadays, we have students sitting in small groups in classrooms. This change aims to encourage them to talk and interact with each other. Unlike the old row setup, where everyone focused on the teacher, this new approach gives students more responsibility and chances to learn together with their classmates.

The arrangement of seating in classrooms influences not only comfort but also the degree of student interaction and engagement. Furniture layout can determine how students interact with each other and the teacher, impacting their learning experience and inclusion, which is especially relevant to students from historically underrepresented groups (Cheryan et al., 2014). In modern, active classrooms, adaptable furniture that both students and teachers can easily rearrange is essential. The California Department of Education (CDE) underscores this need, stating that collaborative learning spaces benefit from furniture that is versatile and easily adjustable. This includes chairs, desks, and tables equipped with wheels to facilitate effortless movement. Additionally, the CDE notes that mobile storage cabinets and carts enhance flexibility and adaptability in science labs, communal areas, and other learning environments.

Another dimension is the symbolic aspect of the classroom, which includes classroom design and how it can influence students' ability to learn effectively. Thoughtfully designed classrooms can lead to sustained improvements in student engagement and reduce disruptive behaviors. Rands and Gansemer-Topf's (2017) study indicated that the classroom layout fostered a sense of community among learners, supported students in working at their ideal challenge level, and facilitated holistic learning experiences. The research by Cutillas et al. (2023) and Rogers (2020) supports these findings in a similar way. Ultimately, classrooms designed with these considerations in mind support a positive academic climate and facilitate better learning outcomes across all age groups and grade levels (Afriadi, 2018). Both physical and symbolic elements of the classroom setting have a profound impact on student participation and academic performance. It is also important to note that when assessing student engagement, it is crucial to consider classroom design in conjunction with class format and learning objectives. This is because Sanders's (2013) study did not corroborate the prevailing notion that innovative seating universally enhances student engagement. Therefore, the current study prioritized understanding the objectives and requirements of each lesson before implementing various seating arrangements.

Turner and Patrick (2004) defined student participation as the act of freely sharing their thoughts, volunteering responses to questions, actively engaging during teacher-led activities,

demonstrating concepts on the board, conversing with peers or the teacher about their work, and completing assigned tasks. Barkley (2010) defined student engagement as a process and a product that is experienced on a continuum and results from the synergistic interaction between motivation and active learning. He suggests that classroom environments can foster this synergy between active learning and motivation by (a) creating a sense of classroom community, (b) helping students work at their optimal level of challenge, and (c) teaching in a way that promotes holistic learning. Willms (2003) emphasized that participation encompasses aspects such as bringing necessary materials to class, maintaining readiness, and displaying consistent attendance.

Fernandes et al. (2011) discovered that the positioning of students within the classroom, whether in the front or back, influences their participation levels due to varying degrees of perceived control over learning. It can spark curiosity, creativity, and critical thinking skills, prompting active exploration and knowledge acquisition. Educators can foster an inclusive, student-centered environment that enhances effective learning by carefully considering students' needs and preferences during the design process (Cooper and Fry, 2020). Talbert and Mor-Avi's (2019) review of 37 studies on active learning confirmed its beneficial effects on student learning outcomes. Montello's (1988) research identified a positive correlation between heightened participation rates and students' sense of belongingness and significance within the classroom environment. Metzger and Langley (2020) identified distinct patterns of student engagement in 23 classes, categorizing them into three types—listening/processing, discussing, and problem-solving—which collectively accounted for 74% of all observed learning behaviors.

This study interprets participation as the frequency with which students engage in discussions and respond to teacher inquiries during whole-group lessons, considering their seating arrangements. Consequently, attention was given to how the classroom design supports behaviors and conditions that enhance student engagement.

3. Research question

How does the physical design and arrangement of a classroom affect students' concentration, motivation, and academic achievement?

In what ways do classroom climate and teacher-student interactions within the classroom setting influence student engagement and learning outcomes?

4. Methodology

A mixed-methods approach was used to evaluate the impact of the classroom setting on student performance and provide a comprehensive

understanding of the environment's effects on learning outcomes. The methodology involved instruments as below.

4.1. Quantitative analysis

The study consists of 30 students enrolled in a Tamil degree program, explicitly taking Tamil classical literature as one of their subjects. I opted for this smaller sample size because only 30 students are currently enrolled in the second-year BEd Tamil program. Additionally, a smaller sample size is conducive to creating an effective teaching and learning environment by simplifying different seating arrangements, making the study more conclusive.

Baseline academic performance data for students in the selected classroom were collected using their marks from quizzes and assignments, both individual and group, related to the Tamil literature content. Collecting data on students' performance before changing the seating arrangement helps me to establish a baseline. This baseline is essential for comparing future performance and identifying any changes or improvements. Using marks provides an objective measure of academic performance, which is crucial for making valid comparisons and drawing reliable conclusions. By comparing pre-test and post-test data, I can evaluate the effectiveness of the new seating arrangement in improving students' learning outcomes.

As an intervention, seating arrangements were made according to the type of activities (U-style, V-style, and Circle) to test their impacts on student performance. Physical aspects of the classroom, such as seating arrangements, were measured. This process included observation, measurement, and documentation. I noted the positions of the flip chairs and measured the distances between the chairs and the teacher's desk or board. Additionally, photos of the seating layout were taken for reference.

Post-test measurement involved assessing both student participation and the scores they obtained on their quizzes. After a set period, the student's academic performance was assessed to identify changes or improvements. These participations were recorded using a tally chart, allowing me to analyze the frequency and duration of student participation in each lesson under different seating arrangements.

The scores from the pre-test and post-test were analyzed using a paired sample t-test. This method helped to compare the means of the pre-test and post-test scores to determine if there was a statistically significant improvement. The value obtained determines the strength and significance of the relationship between classroom environment variables and student performance.

4.2. Qualitative analysis

Students were interviewed after they experienced different seating arrangements to

gather their subjective assessments of the classroom environment and perceived impacts on learning.

Observations: Classroom interactions, focusing on student behavior and engagement in relation to the given task, were observed and recorded. The student's participation in each lesson was counted as participation. Actions such as raising hands, answering questions, and fully engaging in role-plays were counted as participation.

4.3. Data collection

Before the students' arrival for each class, I outlined the curriculum and content I intended to cover during the teaching session. I established clear goals for both me and my students, focusing on objectives such as deepening understanding of Tamil classical literature, improving language proficiency, fostering critical thinking skills, and cultivating an appreciation for cultural heritage. In terms of teaching methodology, I employed a variety of strategies to engage students actively in the learning process. These included interactive discussions, group activities, multimedia presentations, and hands-on exercises. The teaching approach prioritized student-centered learning, ensuring that students play an active role in their education.

To support these goals, I carefully planned my physical space for each of my classes. The arrangement of the classroom provided clues to students and the types of interactions expected. For instance, rows of chairs facing a podium indicate that one individual will do most of the talking, while chairs set in a circle require all participants to speak after fixing the physical space. I will take some time to see how the selected arrangement will look to each student. In learning-centered classrooms, a spatial environment is designed to facilitate collaboration. Some teachers plan the arrangement of their rooms in advance; others set up the room arrangement after negotiations with their students. [Anderson \(1995\)](#) concluded that seating flexibility—as opposed to a perpetually fixed seating arrangement—is a prerequisite for an interactive classroom. I did the same; sometimes, I fixed the arrangement, and sometimes, I discussed it with my students for their next lesson.

The methodology employed in this study on Tamil literature comprised a structured approach spanning 14 weeks of classes. Within this 14-week timeframe, the first five weeks were dedicated to teacher-centered learning activities, revision sessions, and assessments, including quizzes. These teacher-centered periods allowed for the consolidation of knowledge, review of critical concepts, and evaluation of student progress through formal assessments. The following nine weeks incorporated nine rounds of investigation, each spanning three weeks. Throughout the study, a cyclic process was adopted, wherein the layout of classroom desks was altered every three weeks, marking the commencement of a new phase of data collection. This approach aimed to observe the

impact of varying seating arrangements on student participation and engagement over consecutive intervals.

By alternating between student-centered and teacher-centered approaches, the study aimed to provide a comprehensive understanding of the influence of classroom dynamics on learning outcomes in the context of Tamil literature education. Through systematic observation and analysis, the research sought to identify effective strategies for optimizing student engagement and participation within the classroom setting.

Quantitative observations were conducted using a participation tally chart to track student engagement levels. This involved recording the frequency of student participation during class activities, with data collected twice a week. A mark was placed next to the student's name on the chart to show that the student raised their hand in response to a question from the teacher or involved in a discussion with their peers.

Additionally, performance metrics were assessed through quantitative means, utilizing tests administered every two weeks to gauge students' comprehension and retention of course material. We compared how much students' scores improved from the pre-tests to the post-tests. The pre-test was given after the first week's lecture, while the post-test was at the end of the third week after student-centered learning. Both tests covered the same standards but had slightly different questions. Analyzing the percentage increase in scores helped us see how different seating arrangements affected learning outcomes—whether they helped students improve or not.

In conjunction with quantitative data collection, qualitative insights were obtained through students' responses. This involved gathering feedback and reflections from students regarding their learning experiences, perceptions of the teaching methods employed, and any challenges encountered. Throughout the study, students were randomly assigned seats in each new classroom layout, ensuring an unbiased distribution and enabling the evaluation of seating arrangement effects on participation and academic performance.

Data were collected from student questionnaires and interviews to gather insights into their feelings regarding each classroom layout. The questionnaire consisted of four yes/no questions and two Likert scale questions. Yes/no questions addressed aspects such as enjoyment of the desk setup, ease of joining class discussions, simplicity of collaboration with classmates, and changes in feelings about learning. Likert scale questions assessed the impact of the desk arrangement on participation and learning, as well as overall satisfaction with the setup.

Additionally, short answer questions were posed during interviews conducted at the end of the research period. These interviews aimed to elicit more detailed responses from students regarding their experiences with different seating arrangements. A single question was asked during

the interview: "Which layout do you think you were able to learn and work best in?" This question sought to provide a conclusive answer regarding the preferred seating arrangement among students for optimal learning and productivity.

The anticipated outcomes for students from this study included enhanced language skills, increased comprehension of literary texts, improved critical thinking abilities, and a heightened appreciation for the cultural and historical contexts of Tamil literature. Additionally, students were expected to demonstrate active participation and engagement throughout the class. Student involvement was multifaceted and flexible, which allowed for a range of roles and responsibilities. This involved students taking on various roles, such as discussion leaders, peer reviewers, and presenters. The learning environment will encourage collaborative learning, where students can learn from each other and contribute to the collective understanding of the subject matter.

4.4. Data analysis

For data collection on participation, a participation tally chart was used for each of the three different seating layouts: U-style, V-style, and circle. The participation tally chart (data source one) included a diagram of the desks with the placement of each student labeled. During the whole group lesson, a tally was marked by the student's name on the chart to indicate that the student raised their hand to answer a teacher's question. Additionally, tallies were made when the student participated in group discussions by asking questions, answering questions posed by peers, or giving opinions on statements made by their peers. Despite having group activities, tallies were scored per student.

The participation tally chart in [Table 1](#) indicates that the average number of tallies per student varies slightly depending on the activity: 4.2 for drama, 4.8 for debate, and 4.4 for role-play. These averages suggest differences in student engagement based on the nature of the activity and potentially the seating arrangement used.

Drama activities often require movement and collaboration, which are best facilitated by seating arrangements that allow for flexibility and interaction, such as a U layout. This arrangement enables students to see and interact with each other easily, fostering a more dynamic and participatory environment. Debates typically involve structured arguments and responses, which might benefit from a V-style seating arrangement. This layout allows students to face each other directly, enhancing their ability to engage in back-and-forth exchanges and making it easier for them to follow the flow of the debate. The higher average tally for debates suggests that this arrangement effectively promotes active participation.

Role-playing activities combine elements of drama and debate, requiring both interaction and structured dialogue. A circle seating arrangement

was found to be optimal for role-playing, providing a balance between visibility and interaction. This setup allows students to engage with the whole group while also facilitating more minor group interactions.

Table 1: Breakdown of tallies and student numbers for each seating arrangement

Number of students	Participation tally charts		
	Drama	Debate	Role-play
1	5	6	8
2	3	6	5
3	7	5	3
4	4	6	5
5	5	7	5
6	2	6	7
7	6	3	3
8	7	4	2
9	5	7	4
10	5	6	4
11	4	8	4
12	4	4	6
13	3	5	5
14	2	5	4
15	3	4	2
16	6	2	4
17	7	5	7
18	5	2	8
19	4	6	4
20	4	7	3
21	6	7	3
22	3	5	2
23	2	4	7
24	3	2	5
25	3	6	3
26	5	2	3
27	4	3	7
28	4	3	6
29	2	4	2
30	3	5	2
Average number of tallies per student	4.2	4.8	4.4

In summary, the seating arrangement influences student participation differently depending on the activity. A U layout enhances engagement in drama activities, V-style arrangements are more effective for debates, and circle arrangements suit role-playing activities. The average number of tallies per student reflects these dynamics, with debates showing the highest participation due to the seating layout's effectiveness in encouraging active involvement.

Pre-test and post-test data were analyzed using Microsoft Excel. The collected data underwent analysis using paired sample t-tests, which were used to assess significant improvements in scores following changes in seating arrangements.

Based on [Table 2](#), Hypothesis 1 is derived: The selected students will have a mean score difference in drama, debate, and role-play between the pre-and post-test.

[Table 3](#) shows a paired sample t-test for the mean Score difference between pre-and post-test in Drama, Debate, and role-play among the selected students. According to [Table 3](#), the calculated t-value for Drama, Debate, and Role-Play is statistically significant at the 0.01 level. Hence, hypothesis 1 is accepted. Further, it is concluded that the seating arrangement is highly effective for enhancing students' academic performance.

Table 2: Results of the pre-test, post-test, questionnaire, and interview

No.	Pre-test mark			Post-test marks			Enjoyment of desk setup	Ease of joining class discussions	Collaboration	Change in feelings of learning	Motivation level [impact of desk arrangement]
	Drama	Debate	Role-play	Drama	Debate	Role-play					
1	11	13	14	17	18	18	YES	YES	YES	YES	8
2	17	14	16	18	17	19	YES	YES	YES	YES	9
3	16	12	12	17	19	18	YES	YES	YES	YES	9
4	20	17	19	20	20	20	YES	YES	YES	YES	7
5	13	13	16	17	18	18	YES	YES	YES	YES	10
6	13	14	16	18	18	20	YES	YES	YES	YES	10
7	14	15	13	18	19	19	YES	YES	YES	YES	10
8	17	14	14	19	19	20	YES	YES	YES	YES	9
9	16	13	12	18	17	19	YES	YES	YES	YES	9
10	12	11	11	16	17	17	YES	YES	YES	YES	9
11	12	14	15	16	18	19	YES	YES	YES	YES	8
12	13	16	13	16	16	18	YES	YES	YES	YES	7
13	11	14	13	17	18	19	YES	YES	YES	YES	8
14	14	12	15	17	16	18	YES	YES	YES	YES	9
15	16	13	12	16	16	19	YES	YES	YES	YES	10
16	17	15	13	19	19	19	YES	YES	YES	YES	9
17	16	18	17	19	20	18	YES	YES	YES	YES	9
18	20	19	18	20	20	19	YES	YES	YES	YES	8
19	11	14	13	15	17	18	YES	YES	YES	YES	8
20	13	15	13	18	19	18	YES	YES	YES	YES	7
21	14	13	12	17	18	17	YES	YES	YES	YES	10
22	14	12	11	19	20	20	YES	YES	YES	YES	10
23	12	11	14	19	19	18	YES	YES	YES	YES	10
24	15	13	15	18	20	19	YES	YES	YES	YES	7
25	15	15	16	20	19	19	YES	YES	YES	YES	8
26	16	14	14	18	18	19	YES	YES	YES	YES	9
27	16	16	13	20	20	18	YES	YES	YES	YES	9
28	17	17	15	20	20	20	YES	YES	YES	YES	10
29	13	15	17	16	19	20	YES	YES	YES	YES	10
30	14	11	14	18	17	19	YES	YES	YES	YES	10

Table 3: Paired sample t-test for mean score difference between pre and post-test in drama, debate, and role-play among the selected students

Name of the variables		Mean	N	SD	DF	T-value	P-value
Pair 1	Pre-test drama	14.60	30	2.401	29	9.945*	.000
	Post-test drama	17.87	30	1.432			
Pair 2	Pre-test debate	14.10	30	2.006	29	12.990*	.000
	Post-test debate	18.37	30	1.299			
Pair 3	Pre-test role-play	14.20	30	2.024	29	13.274*	.000
	Post-test role-play	18.73	30	.868			

*: Statistically significant at 0.01 level

Table 4 illustrates the level of self-motivation among the selected students. According to Table 4, 13.3% of the students reported a motivation level of 7, 20.0% reported a level of 8, 33.3% reported a level of 9, and 33.3% reported a level of 10. This indicates

that nearly all the selected students experienced increased motivation due to the various seating arrangements implemented for different lessons and activities.

Table 4: Level of self-motivation among the selected students

Level of motivation	Frequency	Percent	Cumulative percent
7	4	13.3	13.3
8	6	20.0	33.3
9	10	33.3	66.7
10	10	33.3	100.0

The data suggests that the seating layout plays a significant role in enhancing students' motivation to study. By tailoring the seating arrangements to suit different lessons and activities, students likely felt more engaged and comfortable, which in turn boosted their motivation levels. Such an approach may create a more dynamic and interactive learning environment, helping students to remain focused and interested in their studies. The pre-test and post-test results indicate a trend towards higher scores, with the lowest post-test score being only 15. This suggests improvement among the participants. Following the cluster seating arrangement, all participants achieved notable improvements in their scores. All 30 participants unanimously answered "Yes" to all four questions in the questionnaire,

indicating a consensus in enjoyment of the desk setup, ease of joining discussions, simplicity of collaboration, and positive feelings about learning.

Additionally, the Likert scale responses revealed that all participants rated the impact of the desk arrangement at seven or above, indicating a robust positive inclination. During the interviews, participants expressed their liking for all three types of seating arrangements, highlighting that no preference existed as each lesson necessitated a different setup. The positivity observed among the participants stemmed from the novelty of experiencing such seating arrangements in this class, in contrast to the traditional seating style observed in other classes.

5. Result and discussion

5.1. U-style

After two weeks of lecturing on the topic of Akam, students were assigned a group project. They were tasked with performing a drama inspired by the essence of Akam poems. Five groups were formed, each consisting of six members, and each group was given a different set of poems to work with. The drama required the use of props, and students were encouraged to incorporate their creativity without any restrictions in their performances. The U-shaped seating arrangement provided several benefits during the drama performances inspired by Sangam literature, mainly focusing on themes of love. Firstly, it ensured enhanced visibility for all students, granting each a clear line of sight to the center stage, thereby enabling them to observe the performances fully. This layout also promoted increased engagement among students, as they were physically oriented towards the performance area, naturally drawing them into the action and fostering a deeper connection with the material being presented.

Furthermore, the arrangement facilitated improved interactivity among students, allowing for seamless communication during and after the performances. This ease of interaction enabled discussions, questions, and feedback to flow more smoothly, enriching the learning experience. Lastly, the immersive nature of the setup contributed to enhanced motivation among students. Surrounded by peers actively participating in the creative process, students were inspired to invest more effort in their performances and strive for skill improvement, thus enriching their overall learning journey. The pros of the U-shaped seating arrangement are manifold. I was able to maintain uninterrupted attention to every student, which is beneficial for individual monitoring and feedback. This arrangement is ideal for more extensive group discussions, encouraging face-to-face interaction among students and instructors, thereby promoting active participation. It is also conducive to guided practice that requires significant teacher presentation, as the open space in the center facilitates demonstrations and activities.

Additionally, this setup allows ample space for viewing presentations, supporting various instructional methods. However, the U-shaped arrangement does have its drawbacks. It is not space-efficient, requiring a large area for implementation, which may not be feasible in smaller classrooms. The layout can also result in noise accumulation in the center of the room, potentially causing disturbances. Limited gaps between tables mean that students may take longer to navigate the space, leading to delays and possible disruptions. Despite these potential issues, I did not encounter these problems because the students were working in small groups, and I also took care to choose an appropriate classroom for the setup. For

instance, prior to this class, I booked a larger room to ensure that space constraints would support the lesson's objectives. Therefore, instructors need to check the available space before implementing different seating arrangements.

Additionally, this setup can create anxiety for shy students who might be reluctant to participate in group discussions. Initially, I encountered this issue. The first two groups performed reasonably well but expressed feeling anxious about being the center of attention during their performances. However, the latter groups showed full involvement and felt encouraged by their peers, leading to improved engagement and participation. In fact, the first two groups requested a second chance to perform, having gained confidence from watching the latter groups and being driven by the desire to improve their performances. In conclusion, the U-shaped seating arrangement significantly impacts student performance and engagement by enhancing visibility, promoting engagement, improving interactivity, and boosting motivation. Despite its challenges, such as space inefficiency, noise accumulation, limited mobility, and potential anxiety for shy students, the benefits it offers can enrich the educational experience when balanced appropriately.

5.2. V-style

Conversely, the V-shaped seating arrangement proved instrumental in fostering dynamic debate sessions focused on classical and modern Tamil poetry. This setup, where three teams of ten members each were arranged in a V formation, facilitated a structured yet engaging discussion format. One of the primary advantages was the enhanced visibility it offered. All participants had an unobstructed view of the central debate area, which facilitated clear communication and maintained focus on the arguments presented. Moreover, the V-shaped layout promoted better face-to-face interaction among students. Positioned in a manner that minimized physical barriers, it encouraged inclusivity and active participation from a more significant portion of the class. This setup not only facilitated direct engagement during debates but also promoted collaborative dynamics among team members. Students were able to exchange ideas more freely, contributing to a deeper exploration of the poetry topics and enhancing critical thinking skills.

Additionally, the V-shaped arrangement supported moderator involvement. By centralizing oversight of the debate, I could effectively guide discussions, provide timely feedback, and ensure equitable participation among team members. This structure created an environment conducive to intellectual exploration and enriched the overall learning experience. This seating arrangement successfully engaged the entire class. In previous sessions, I had observed that some students were hesitant to share their opinions, or if they did, their

contributions were brief. However, during the debates, these students became more vocal and expressed a desire for more similar debating sessions in future classes. However, the V-shaped arrangement posed challenges. The increasing distance between participants as it diverged hindered active listening and comprehensive engagement despite them facing each other. Some students struggled to hear clearly, impacting their ability to participate in discussions fully. Despite these limitations, the format proved effective for structured debates where clarity of argument and moderated interaction were prioritized. To tackle this issue, I successfully encouraged subsequent teams to speak louder to ensure clarity in expressing their opinions during the following debates.

5.3. Circle

The circle seating arrangement played a crucial role in shaping student performance and engagement during a role-play activity centered on dressing up as a king, inspired by themes from the Puranaanuru song. Initially, the setup posed challenges as students performing from the center obstructed the view of those in the circle, affecting their ability to fully engage in the role-play, especially in conveying emotions through body language. To address this issue, adjustments were made so that students performed from their places within the circle in subsequent rounds. This adaptation resulted in a noticeable improvement in on-task oral responses, creating a more inclusive and practical experience for all participants involved.

One of the notable advantages of the circle seating arrangement was its ability to ensure equal visibility for all participants. This layout enabled every student to participate and engage actively in the role-play, fostering a collaborative atmosphere where ideas could be freely exchanged. Enhanced face-to-face interaction among students facilitated deeper discussions and a more thorough exploration of the thematic elements present in the Puranaanuru song. Moreover, the setup promoted active listening skills as students attentively responded to cues and expressions from their peers during the role-play, enhancing their comprehension and engagement. Furthermore, the circle seating arrangement facilitated close observation of body language and facial expressions, which were crucial for interpreting emotions and character traits during the role-playing activity. This aspect not only deepened students' understanding of emotional expression but also honed their acting skills by encouraging them to incorporate nuanced gestures and expressions into their performances. Despite these advantages, the circle seating arrangement had inherent limitations. The restricted mobility significantly impacted the student's ability to fully engage in activities that required physical interaction or dynamic movement. Some students who were tasked with roles that demanded extra movement found it challenging to perform

effectively. This restriction not only hindered their ability to act out their parts authentically but also disrupted the flow of the activity, as the physical constraints prevented them from fully immersing themselves in their roles. Hence, implementing a circle seating arrangement necessitated a larger classroom space to accommodate all students comfortably, which could pose logistical constraints in smaller educational settings.

In conclusion, while the circle seating arrangement effectively enhanced student engagement and performance in the role-play activity, its impact was nuanced by considerations of mobility, visibility, and spatial requirements. Educators can leverage these insights to strategically choose and adapt seating arrangements that best support learning objectives and promote active participation among students in various classroom activities. Understanding these dynamics empowers educators to create dynamic and conducive learning environments that optimize student learning experiences.

6. Conclusion

In conclusion, a classroom should be vibrant, fostering the discovery, learning, and growth of academic competence, social and academic communication skills, and the application of acquired knowledge and expressive abilities. The selection of seating arrangements within a classroom plays a pivotal role in shaping the learning experiences of students during diverse activities. The U-shaped configuration proves effective for observing performances, facilitating enhanced visibility, engagement, and interaction among students. On the other hand, the V-shaped setting excels in fostering debate participation through the promotion of inclusivity, audience engagement, and a dynamic atmosphere conducive to lively discussions. Meanwhile, the circle-shaped arrangement enhances role-playing experiences by fostering equal visibility, facilitating interaction, and encouraging the observation of body language, thereby enriching the immersive learning environment for students. Each seating arrangement offers unique benefits tailored to specific learning contexts, emphasizing the importance of thoughtful consideration when designing classroom layouts to optimize student engagement and participation.

The emphasis on student interaction has proven instrumental in facilitating active learning processes and enhancing information retention among students. This approach not only fosters a more profound sense of belonging but also underscores the significance of student choice and voice within the classroom environment. Through the implementation of conducive seating arrangements, particularly in smaller groups of up to 30 students, I have observed firsthand the positive impact on student engagement and participation. In a learning-centered classroom, participation takes on a broader definition, encompassing norms such as students

actively engaging in discussions without needing direct prompting from the teacher. This may include students calling on each other and contributing to the conversation while also maintaining eye contact with the speaker rather than solely focusing on the teacher. Furthermore, in such classrooms, the traditional roles of students and teachers become more fluid and less strictly defined. Students may take on the role of the teacher by instructing their peers or even guiding the teacher during class discussions. Conversely, teachers may adopt the roles typically assumed by students, allowing for a more collaborative approach to learning where both parties share responsibility for facilitating understanding and negotiating meaning. This dynamic shift in roles promotes a more interactive and inclusive learning environment, fostering greater autonomy and engagement among students while also empowering them to take an active role in their education.

Compliance with ethical standards

Ethical considerations

Informed consent was obtained from all participants, and measures were implemented to protect their confidentiality and anonymity. This study adhered to ethical guidelines to ensure participants' rights and data security throughout the research process.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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