

Implementing Three-Minutes-Each-Way Technique to Enhance Student Participation in Lecture

*Vithusia Prashanth., Arulnesan Priscilah Nivetha

Trincomalee Campus, Eastern University, Sri Lanka

DOI: <https://dx.doi.org/10.47772/IJRISS.2025.903SEDU0174>

Received: 18 March 2025; Accepted: 22 March 2025; Published: 24 April 2025

ABSTRACT

This study explores the implementation of the Three-Minutes-Each-Way technique in university classrooms to enhance student engagement and active participation. Traditional lecture formats, which often emphasize one-way communication from instructor to student, typically lead to passive learning. This approach can limit students' opportunities for interaction, leaving them less engaged and hindered in their comprehension of complex concepts. The Three-Minutes-Each-Way technique introduces a solution by incorporating structured, brief, bidirectional discussions between the lecturer and students, transforming the lecture into a more dynamic and participatory environment. By allocating short, focused time intervals for discussions in which both students and lecturers exchange ideas, this method encourages students to articulate their understanding, ask clarifying questions, and actively engage in meaningful dialogue. The technique allows students to reflect on their thoughts in real-time and provides immediate feedback from the lecturer, making learning more interactive and personalized. These brief discussions are designed to promote active learning while maintaining an effective pace in the lecture. The study examines how the Three-Minutes-Each-Way method impacts various aspects of the learning experience, including student participation, comprehension, and overall lecture effectiveness. Findings indicate that integrating this technique into classroom activities fosters greater student confidence, encourages deeper conceptual understanding, and improves classroom dynamics. Importantly, it provides an inclusive platform for students who may be hesitant to participate in more traditional lecture settings, such as those who struggle with anxiety or feel overshadowed by more vocal peers. The research underscores the importance of incorporating structured interactive techniques in higher education to bridge the gap between passive reception and active learning. By cultivating an environment where students are encouraged to participate actively, the Three-Minutes-Each-Way method helps create a more engaging, effective, and inclusive teaching methodology that enhances both knowledge retention and student satisfaction.

Key words: Three minutes each way, Student Participation, Class room observation, Student Survey, Active Learning

INTRODUCTION

Student participation is an important component of an engaging and effective learning environment in lecture (Prince, 2004). However, during lectures, it was observed that only a small number of students actively engaged in discussions and question-and-answer sessions. This lack of participation may arise from a fear of judgment, lack of confidence, or hesitation to express opinions in a large classroom setting. Traditional lecture-based teaching methods often contribute to this issue, as they provide limited opportunities for all students to engage equally.

To address this challenge, a new teaching method called "Three Minutes Each Way (3MEW)" was introduced. This method encourages student engagement by providing each individual with a structured opportunity to articulate their thoughts on a given topic within a strict three-minute timeframe (Felder and Brent, 2009). The approach aims to enhance students' confidence, communication, listening, critical thinking, and time management skills. By fostering an inclusive and interactive learning atmosphere, this technique ensures that every student has a voice in classroom discussions.

The "Three Minutes Each Way" method is grounded in the principles of active learning, which emphasizes student engagement and participation as key factors in enhancing learning outcomes. Drawing on concepts from Biggs and Tang (2011), this method aligns with the idea that structured, student-centered activities can significantly improve the quality of learning. By giving each student, a designated time to speak, the method aims to democratize classroom discussions, ensuring that every voice is heard. This approach also aligns with the development of critical soft skills, such as communication, critical thinking, and time management, which are essential for students' academic and professional growth. This study explores the implementation and effectiveness of the Three-Minutes-Each-Way method in lectures, focusing on its impact on student participation, engagement, and overall learning outcomes.

LITERATURE REVIEW

Active learning, which involves students in the process of learning through activities such as discussions, problem-solving, and peer collaboration, has been shown to significantly enhance student engagement and participation (Prince, 2004). The 3MEW technique aligns with the principles of active learning by giving students the opportunity to express their ideas in a structured and supportive environment. By providing a set time for each student to speak, this method encourages equal participation, allowing all students to be heard without the pressure of spontaneous contributions in front of a large group (Barkley, 2010).

Many students report feeling nervous or anxious about speaking in front of their peers. According to research by McKeachie (2011), creating a supportive and structured environment for student participation can significantly reduce these feelings of anxiety. The 3MEW technique provides a safe space for students to express their thoughts, as each student has an equal amount of time to speak, thereby reducing the pressure of competing with others for attention. Additionally, the structured nature of this method helps students to organize their thoughts clearly and confidently. The 3MEW technique promotes peer interaction, which is an essential component of collaborative learning. As students listen to and respond to one another, they engage in shared learning experiences that deepen their understanding of the subject matter. Collaborative learning has been shown to improve critical thinking skills and foster a sense of community within the classroom (Johnson, Johnson, & Smith, 1998). The peer-to-peer interaction facilitated by the 3MEW technique encourages students to evaluate different perspectives and consider alternative viewpoints, which can lead to a more comprehensive understanding of the topic at hand.

The 3MEW technique is also beneficial for managing class time and ensuring that each student has a chance to speak. According to Felder and Brent (2009), well-structured discussions in the classroom are key to facilitating productive learning environments. By limiting the response time to three minutes per student, ensure that discussions remain focused and that all students contribute. This time constraint also encourages students to think quickly and present their ideas concisely, a valuable skill in both academic and real-world scenarios. The 3MEW technique has been shown to enhance students' communication skills, particularly in terms of articulating their ideas clearly and engaging with others. According to Hidi and Anderson (1986), frequent practice in verbal communication helps students develop the skills necessary to express their thoughts more effectively. By practicing communication in a structured manner, students gain more confidence in their speaking abilities and improve their verbal fluency. Furthermore, the technique fosters listening skills, as students are required to listen actively to their peers during the three-minute speaking periods.

METHODOLOGY

Data collection

The target group for the implementation of the "Three Minutes Each Way" technique is second-year, first-semester students enrolled in the System Analysis and Design course and the total numbers students is 55. This group was chosen because the subject often involves the application of real-world scenarios, where discussions and assumptions are critical for understanding the concepts being taught. In System Analysis and Design, students are required to analyze complex systems, propose solutions, and consider multiple perspectives. Therefore, supporting an environment where students can confidently share their ideas and engage in meaningful discussions is essential. By using this technique, it is expected that students will become more comfortable

discussing real-world situations, developing their problem-solving skills, and refining their understanding of the course material through collaborative dialogue.

Before implementing the 'Three Minutes Each Way' technique, it was observed that students were hesitant to answer questions openly in front of their peers, even though the same students performed well in assessments. To understand the root cause of this issue, a survey was conducted, asking students about their concerns. As expected, most of them responded to the survey, providing valuable insights into their actual challenges.

To collect data from students, a Google Form was used to gather initial feedback regarding their experiences and challenges with participation in class discussions.

After implementing the "Three Minutes Each Way" technique, a follow-up survey was conducted to assess its impact on students' studies and communication skills using google form.

Additionally, observations were made in the classroom environment during lectures to monitor student behavior and participation. The combination of survey data and classroom observations provided valuable insights into the success of the method and areas for further improvement.

Implementation

The Three Minutes Each Way technique follows a structured approach to encourage student participation and engagement in discussions. First, a topic or question is presented to the class, designed to stimulate critical thinking and discussion. This could be a conceptual question, a problem-solving scenario, or an open-ended query related to the lesson. Once the question is introduced, each student is given three minutes to respond. During this time, they are encouraged to express their thoughts, reasoning, and understanding of the topic without interruption. This structured response time ensures that every student gets an equal opportunity to contribute without feeling rushed or overshadowed by more vocal peers.

While one student speaks, the rest of the class actively listens, encouraging an environment of respect and attentiveness. Active listening helps students engage with diverse perspectives, identify different approaches to problem-solving, and refine their understanding of the subject matter. After the response period, constructive feedback is provided, or additional questions are asked to deepen the discussion. This feedback can include clarifications, elaborations, or suggestions that guide students toward a more comprehensive understanding of the topic.

Data Analysis

To analyze the success of implementing the "Three Minutes Each Way" technique, the process can be divided into pre-implementation and post-implementation phases, with data collected through surveys and classroom observations. As the result,

1. **Pre-Implementation Survey:** Before implementing the technique, collected data from students about the challenges they face regarding participation in class discussions through the google form. This form provided an opportunity for students to express their thoughts anonymously, ensuring honest and accurate responses. Several questions were posed to identify their specific difficulties, and responses were collected for further analysis.

How often do you participate in class discussions?

47 responses

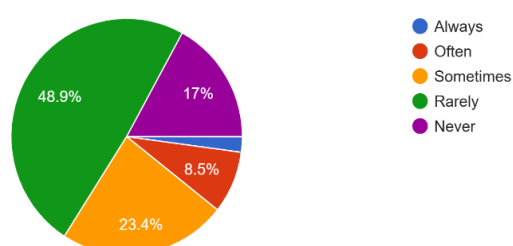


Figure 1: Student Participation in Class Discussions

This figure displays the distribution of responses to the question: "How often do you participate in class discussions?" specifically highlighting the proportion of students who selected "rarely" as their response. The chart reflects the frequency of class participation among students, with a significant portion indicating limited engagement. The 48.9% percentage of students responded with "rarely," suggesting a lack of consistent involvement in class discussions. This response highlights an area of concern regarding student engagement and participation.

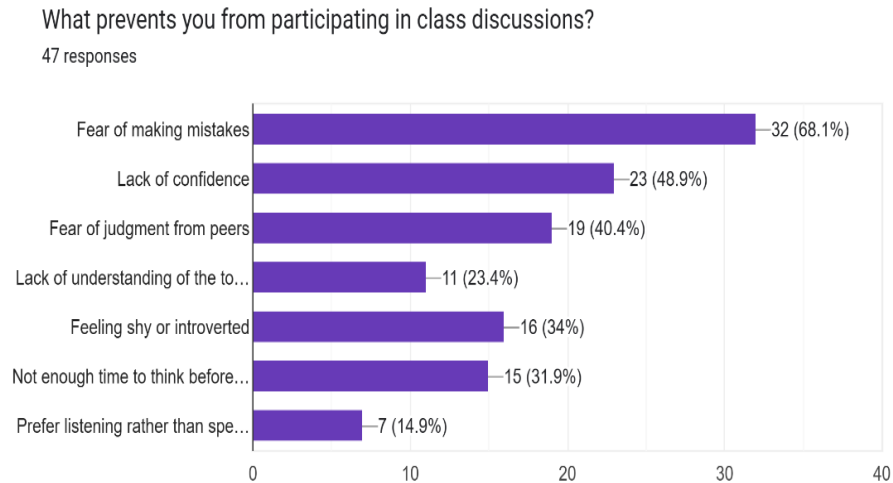


Figure 2: Factors Preventing Class Discussion Participation

This figure shows the results of the question, "What prevents you from participating in class discussions?" The chart highlights barriers such as fear of making mistakes (68.1%), lack of confidence, fear of judgment from peers, feeling shy or introverted, and not enough time to think before responding. Fear of making mistakes is the most significant barrier, suggesting students are concerned about giving incorrect answers. Psychological factors like self-doubt and peer pressure also contribute to reluctance, while some students prefer listening over speaking. These findings emphasize the need for a supportive environment to reduce anxiety and build student confidence.

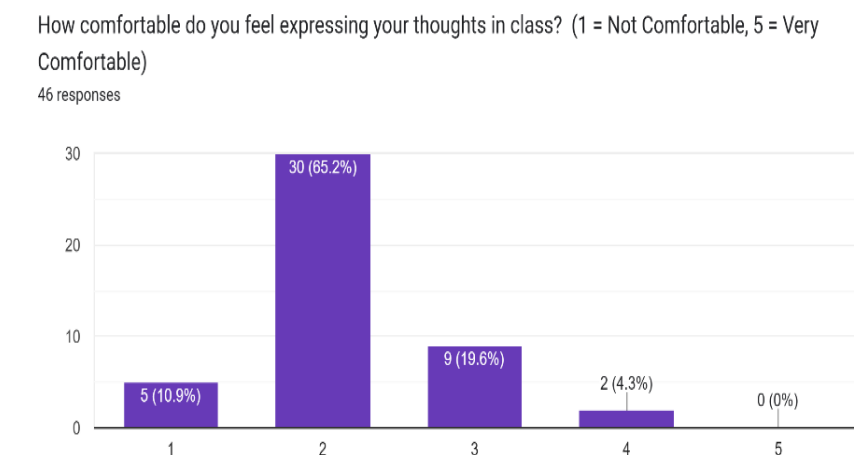


Figure 3: Comfort Level in Expressing Thoughts in Class

This figure presents the distribution of responses to the question: "How comfortable do you feel expressing your thoughts in class?" on a scale from 1 (Not Comfortable) to 5 (Very Comfortable). A significant proportion of students rated their comfort level at 2, indicating a tendency towards discomfort in expressing their thoughts in class discussions. This suggests that psychological barriers, such as fear of judgment, lack of confidence, or anxiety, may be influencing students' willingness to participate actively.

Which teaching method helps you participate more in class

47 responses

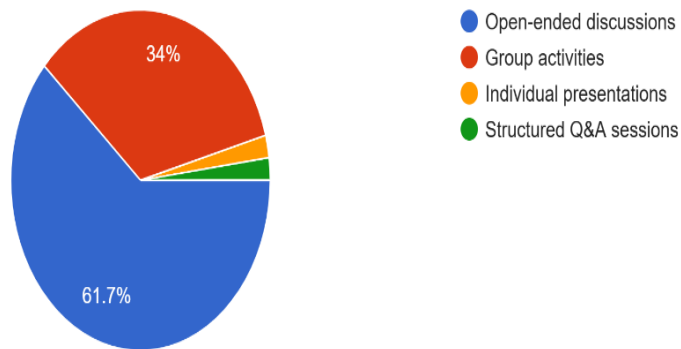


Figure 4: Preferred Teaching Methods for Class Participation

This figure illustrates student responses to the question, "Which teaching method helps you participate more in class?" The chart shows that open-ended discussions and group activities were the most effective methods, with open-ended discussions receiving the highest support. This indicates that students feel more comfortable and motivated to participate when they can share their thoughts freely. Group activities also foster greater participation by providing a more supportive, less intimidating environment. In contrast, individual presentations and structured Q&A sessions were less effective, possibly due to anxiety or a preference for more informal formats. These findings highlight the importance of incorporating interactive, student-centered methods to enhance engagement.

What would help you feel more comfortable participating in class?

47 responses

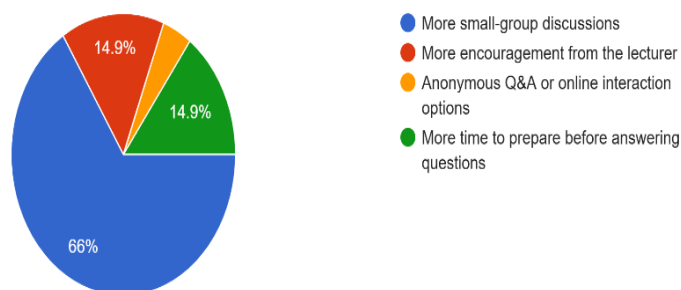


Figure 5: Factors That Would Help Students Feel More Comfortable Participating in Class

The figure presents the results of the question, "What would help you feel more comfortable participating in class?" based on responses from 47 students. The chart highlights a strong preference for more small-group discussions, indicating that students feel less intimidated and more confident in smaller, less formal settings. This approach provides a safer space for students to express their thoughts without the pressure of speaking in front of the entire class. Additional strategies such as more encouragement from the lecturer, anonymous Q&A or online interaction, and more time to prepare before answering questions were also identified as helpful, emphasizing the need for supportive teaching methods that foster a more inclusive and comfortable environment for student participation.

2. **Post-Implementation Survey (Success of the Technique):** After implementing the "Three Minutes Each Way" technique, conducted another survey to assess its effectiveness in improving participation and communication skills. The survey aimed to evaluate how the technique influenced their confidence in speaking in front of peers, their engagement in class discussions, and their overall learning experience.

How comfortable did you feel participating in the Three-Minutes Each Way discussions?

52 responses

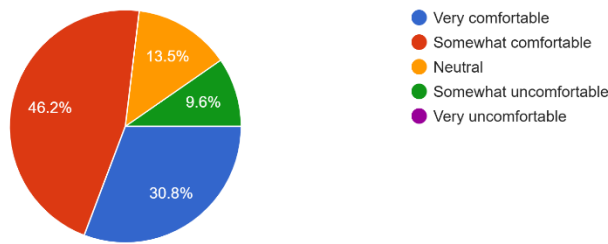


Figure 6: Comfort Level in Participating in Three-Minutes Each Way Discussions

This figure displays the results of the question: "How comfortable did you feel participating in the Three-Minutes Each Way discussions?". The chart shows that 30.8% of students felt very comfortable, while 46.2% felt somewhat comfortable. This indicates that a majority of students felt at least somewhat comfortable engaging in the discussions, with the highest proportion reporting some level of comfort. Fewer students reported feeling neutral or uncomfortable, suggesting that the discussion format may have helped ease participation for most students. These findings highlight the effectiveness of this approach in encouraging student involvement.

How effectively did the Three-Minutes Each Way method help you share your ideas?

52 responses

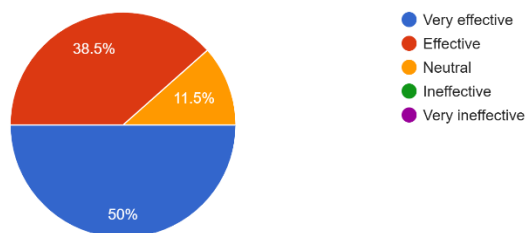


Figure 7: Effectiveness of the Three-Minutes Each Way Method in Helping Students Share Ideas

This figure illustrates the distribution of student responses to the question: "How effectively did the Three-Minutes Each Way method help you share your ideas?" Half of the students (50%) rated the method as very effective, while 38.5% found it effective. Only 11% of students felt it was neutral, with no responses indicating ineffectiveness. These results suggest that the method was generally well-received in facilitating idea sharing among students.

How well did the method encourage you to listen to your peers' perspectives?

52 responses

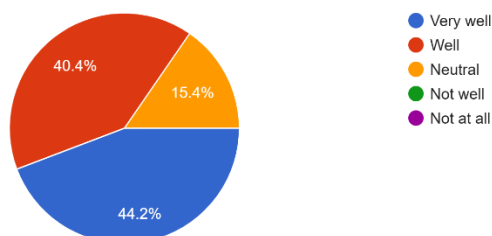


Figure 8: Effectiveness of the Three-Minutes Each Way Method in Encouraging Listening to Peers' Perspectives

This figure shows the distribution of student responses to the question: "How well did the Three-Minutes Each Way method encourage you to listen to your peers' perspectives?" A significant portion of students (44.2%) felt it encouraged them to listen very well, while 40.4% found it encouraged listening well. Only 15.4% felt it was neutral, with no responses indicating it did not encourage listening at all.

neutral, with no responses indicating that the method was ineffective in promoting listening. These results suggest that the method successfully fostered active listening among students.

How engaging was the Three-Minutes Each Way activity compared to other participation methods?

52 responses

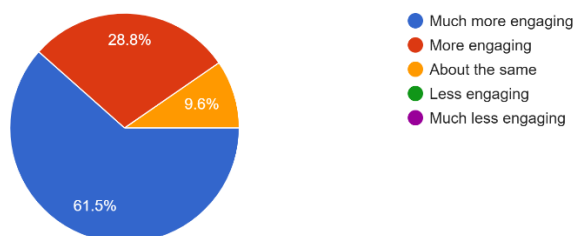


Figure 9: Engagement Level of the Three-Minutes Each Way Activity Compared to Other Participation Methods

This figure illustrates the distribution of student responses to the question: "How engaging was the Three-Minutes Each Way activity compared to other participation methods?" A significant number of students (high percentage) found it much more engaging than other methods, with a notable portion also indicating it was more engaging. Few students felt it was about the same, and very few found it less engaging or much less engaging, suggesting that the activity was generally seen as more interactive and engaging compared to other participation methods.

What did you like most about the Three-Minutes Each Way method?

10 responses

I got several data from others
Before i have some fear to tell about my idea. But now i confident to tell
Make more interest in lecture
Help tell my idea
Create attention to lecture
Make me to take without fear
It help me to listen others
Good method
Help to express my idea

Figure 10: Student Feedback on What They Liked Most About the Three-Minutes Each Way Method

The responses to the question, "What did you like most about the Three-Minutes Each Way method?" highlight several positive aspects of the activity. Many students mentioned that the method helped reduce fear and boost confidence, making them feel more comfortable sharing their ideas. The activity was also appreciated for encouraging active listening and creating more engagement in the lecture. Students felt it increased their interest in the class and provided an opportunity to gather data from others while allowing them to express their ideas without hesitation. Overall, the method was seen as an effective tool for fostering a more interactive and confident classroom environment.

- Classroom Observations:** These observations provided valuable insights into the effectiveness of the technique in fostering a more interactive and supportive learning environment. Most students paid close attention to the discussions, as active participation was required. This expectation encouraged them to prepare in advance and confidently express their thoughts on the given topics. Continuous observation revealed significant improvements in student engagement and overall participation

RESULT AND DISCUSSION

The implementation of the "Three Minutes Each Way" technique yielded positive results in enhancing student participation, communication skills, and classroom engagement. Before the implementation, a survey was conducted to identify the challenges students faced in class discussions, revealing that many hesitated to speak openly despite performing well in assessments. After integrating the technique, a follow-up survey and classroom observations indicated a noticeable improvement in student confidence and willingness to engage in discussions. The majority of students reported feeling more comfortable expressing their ideas, and active listening among peers also improved. Classroom observations supported these findings, showing increased interaction and a more dynamic learning environment. The structured approach of allowing each student dedicated time to speak helped reduce anxiety and fostered equal participation. Additionally, feedback collection through Google Forms provided valuable insights, with students expressing appreciation for the method and suggesting minor refinements, such as incorporating paired discussions before speaking individually. These findings highlight the effectiveness of the technique in overcoming participation barriers, making learning more interactive, and improving students' ability to articulate their thoughts in an academic setting.

CONCLUSIONS

The "Three Minutes Each Way" technique is an effective strategy for enhancing student participation, building confidence, and improving communication skills. By providing a structured framework, this approach ensures that each student has a fair opportunity to express their ideas while actively engaging in peer discussions. It promotes active listening by requiring students to pay close attention to their partner's perspective, fostering a collaborative learning environment. Establishing clear guidelines and expectations at the outset is essential to ensure students understand the purpose and structure of the activity. This clarity helps students feel more prepared and reduces anxiety about speaking. Additionally, outlining the objectives of the exercise reinforces the value of participation and encourages students to engage thoughtfully. Regular practice with this technique can gradually improve students' ability to articulate their thoughts clearly and respond effectively to different viewpoints.

Creating a supportive and respectful classroom environment is fundamental to the success of the "Three Minutes Each Way" technique. Many students are reluctant to speak due to the fear of being judged or making mistakes. To address this, educators should cultivate a culture where all contributions are valued and mistakes are viewed as opportunities for learning. This inclusive atmosphere can help students feel more comfortable sharing their ideas and participating actively. Incorporating a variety of question types—such as factual questions for recall, conceptual questions for deeper understanding, and real-world scenario-based questions for practical application—can further enrich the discussions. These diverse question formats not only promote critical thinking but also make the conversations more dynamic and relevant to real-life situations. By consistently implementing these strategies, the "Three Minutes Each Way" technique can become a powerful tool for enhancing student engagement, communication skills, and overall learning outcomes.

RECOMMENDATIONS AND FUTUREWORK

One way to enhance the implementation of the Three-Minutes-Each-Way Technique is to adjust the time allocation based on the complexity of the topic being discussed. For more complex subjects, extending the time limit to 4-5 minutes may allow students to develop more comprehensive responses. Additionally, incorporating diverse participation formats, such as group or pair discussions before individual speaking, can increase student confidence and engagement. Creating a supportive classroom atmosphere by promoting active listening and encouraging respectful feedback further enhances the effectiveness of the technique. To foster inclusivity, offering alternative participation methods for students who are uncomfortable speaking in front of the class is beneficial. Regular check-ins or feedback sessions can also help refine the approach, ensuring it remains adaptable and responsive to the diverse needs and learning preferences of students.

Integrating technology, such as Google Forms or other digital tools, can facilitate feedback collection and assessment, allowing for continuous improvement of the technique. Combining this method with other active learning strategies, such as think-pair-share or case study discussions, can further enhance student involvement

and cater to different learning styles. Regular classroom observations and student feedback should be used to monitor progress and make necessary adjustments. If students struggle with participation, modifications such as shorter speaking times, paired discussions, or written responses before speaking can be introduced to ease their engagement. Providing guidance on effective communication techniques can help students articulate their ideas clearly and concisely within the given time. Encouraging peer feedback and self-reflection further reinforces learning and improvement. The "Three Minutes Each Way" technique, when implemented thoughtfully and adapted based on student needs, can significantly contribute to a more interactive, inclusive, and engaging learning environment.

REFERENCES

1. Gibbs, G. & Habeshaw, T. (1989). *Preparing to Teach: An Introduction to Effective Teaching in Higher Education*. Bristol: Technical and Educational Services.
2. Biggs, J. & Tang, C. (2011). *Teaching for Quality Learning at University*. 4th ed. Maidenhead: McGraw Hill Education.
3. Sri Lanka Qualifications Framework (SLQF), 2015. Ministry of Higher Education, Sri Lanka.
4. Barkley, E. F. (2010). *Student engagement techniques: A handbook for college faculty*. Jossey-Bass.
5. Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223-231.
6. McKeachie, W. J. (2011). *Teaching Tips: Strategies, Research, and Theory for College and University Teachers*. Cengage Learning.
7. Hidi, S., & Anderson, V. (1986). Producing written summaries: Task demands, cognitive operations, and implications for instruction. *Review of Educational Research*, 56(4), 473-493.
8. Wiggins, G. (2012). Seven Keys to Effective Feedback. *Educational Leadership*, 70(1), pp.10-16.
9. Cowan, J., 1998. *On Becoming an Innovative Teacher*. Buckingham: Open University Press.
10. Johnson, D. W., Johnson, R. T., & Smith, K. A. (1998). Cooperative learning returns to college: What evidence is there that it works?. *Change: The Magazine of Higher Learning*, 30(4), 26-35.
11. Carter, M., & S. Kramp (2011). Enhancing communication skills through active learning in higher education. *Journal of Educational Research*, 15(2), 200-208.