

Integration of EMI (English as Medium of Instruction) through a collaborative teaching scheme to improve the quality of teachers

Akhmad Affandi^{a,*}, Andi Muhammad Fadlih^a, Mardiyannah Nasta^a, M. Miftach Fakhri^a, & Muliana Mursalim^b

^aMakassar State University, Jl. A. P. Pettarani, Makassar, 90222, Indonesia

^bHasanuddin University, Jl Perintis Kemerdekaan Km 10 Makassar City, 90245, Indonesia

Abstract

This community service activity aims to improve teachers' ability to implement Collaborative Teaching based on English Medium Instruction (EMI) at SMA Negeri 5 Gowa. The program was carried out using a Participatory Action Research (PAR) approach involving 23 teachers from various subjects. The instrument was in the form of a pre-posttest questionnaire with 20 Likert scale statements (1–5) which included four dimensions: EMI ability, understanding collaborative teaching, collaborative implementation of collaboration, and effectiveness and feedback. The results of the analysis showed a significant increase with an average of +1.27 points in all dimensions. The biggest improvement was in the aspect of collaboration implementation (+1.29), particularly the skill of designing a 20-minute micro-lesson and providing clear collaborative instructions. These findings confirm that the EMI-based Collaborative Teaching Scheme is able to strengthen teacher confidence, increase pedagogical understanding, and foster a peer-mentoring culture in schools. The use of PAR as a framework of service has proven to be effective because it places teachers as active partners in the planning, implementation, and reflection process. The program not only improves short-term skills, but also forms an ecosystem of continuous reflective learning. Thus, this model has the potential to be replicated in other secondary schools as a strategy to improve the quality of education that is in line with the Impact Campus policy and SDGs targets.

Keywords: EMI, Collaborative Teaching Schemes, Teachers' ability, Teacher training.

1. Introduction

UPT Negeri Senior High School 5 Gowa (formerly known as SMU Negeri 02 Tinggimoncong or SMUDAMA), is one of the leading educational institutions in Gowa Regency, South Sulawesi, Indonesia. This school has been designated as a flagship high school by the South Sulawesi Provincial Government because of its consistency in maintaining the quality of education. Geographically, SMA Negeri 5 Gowa is located on Jalan Poros Makassar-Malino Km. 62, which can be accessed by land from Makassar City with an estimated travel time of 1 to 2 hours or as far as 52.4 km from the Makassar State University (UNM) campus in Parang Tambung.

In an interview with the Principal, Mr. Sudarman, S.Pd., M.Pd., M.M., SM., it was conveyed that SMA Negeri 5 Gowa has great potential to become a pilot school, especially in encouraging learning transformation and innovation in Eastern Indonesia, especially in South Sulawesi. The school currently houses 10 study groups with a total of 305 students, consisting of 144 male students and 161 female students. The teaching and learning process is carried out by 23 teachers, which is supported by infrastructure facilities such as 13 classrooms, 4 laboratories, 1 library, and 2 student sanitation facilities.

Regarding the implementation of English as a Medium of Instruction (EMI), the Principal admitted that although teachers have received training and increased understanding of EMI through previous activities, its application in daily learning practices is still relatively minimal. The challenges faced include the lack of confidence of teachers in using English actively in the classroom and the limited examples of best practices that can be adapted by teachers. Therefore, further mentoring and more applicative training programs are needed so that the EMI strategy can be

* Corresponding author:

E-mail address: akhmad.affandi@unm.ac.id



effectively implemented in the classroom.

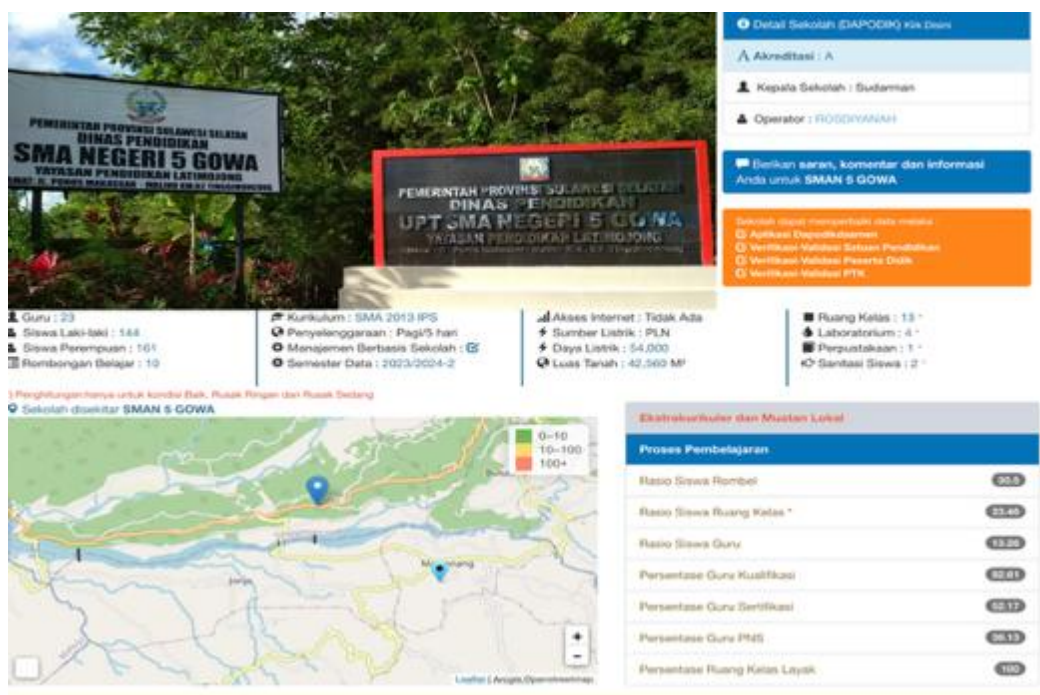


Figure 1. School Profile: SMA Negeri 5 Gowa

The first problem that occurs is that the understanding of EMI already exists, but practice in the classroom is still very limited due to the individual ability of teachers and the lack of direct training. The second problem is, the potential for collaboration between teachers is very lacking and there is no collaboration teaching scheme that helps other teachers who already understand and still need best practices with teachers who still need assistance and guidance in the application of EMI. The principal explained that teachers' practical skills in teaching with EMI are needed to be the foundation for quality and professional teachers. Therefore, the 2 issues above were withdrawn.



Figure 2. Discussion with the Principal: SMA Negeri 5 Gowa

Involves the use of English to teach academic subjects in countries where it is not the first language of the majority

(Curle et al., 2020). Implementation of EMI has been found to offer a variety of benefits, such as embracing globalization, improving employability, and promoting English language learning (Lee, n.d.), (Hoang et al., 2022). Moreover The increasing use of EMI in the context of education globally also has a significant impact on fostering language proficiency and learning content. EMI refers to the use of English as a medium to teach a wide range of subjects, especially in English-speaking countries as a foreign language, and has gained traction in higher education due to its potential to enhance students' academic experience and global competitiveness (Macaro et al., 2018). The increasing demand for competent communication in English has motivated many schools to adopt EMI (Affandi et al., 2024), as it allows students to engage with the international academic community and prepare them for the global job market (Peng & Xie, 2021). As a result, successful implementation of EMI requires productive collaboration between education stakeholders, especially in collaborative teaching environments, to address diverse student needs and learning challenges (Kang et al., 2023; Zou et al., 2022).

Collaborative teaching within the framework of EMI has been highlighted as an important pedagogical approach, especially because of its ability to create an interactive and supportive learning environment. Studies show that strategies such as Reading Circle has been shown to be effective in encouraging student engagement and reducing anxiety in the context of EMI (Kang et al., 2023). Additionally, collaborative teaching promotes strategy sharing among instructors, enhancing their ability to overcome language-related difficulties students experience (Pun & Jin, 2021). Effective collaboration not only enriches the learning experience but also empowers students to take ownership of their learning through active participation, resulting in a deeper understanding and retention of subject content (Chuang, 2015).

However, the transition to EMI is not without challenges, as there are problems from teachers, students and the school. Students may face significant language-related barriers that hinder their understanding of complex subjects (Kamaşak & Şahan, 2023). To mitigate these challenges, it is critical for institutions to provide robust language support systems, such as tailor-made English courses and training for instructors on instructional strategies tailored to the EMI context (Lin & Lei, 2021) Research shows that well-structured EMI courses can improve teachers' and students' English language proficiency, as well as academic performance in subject content when it has adequate support (ELbashir, 2024). As such, integrating effective teaching methodologies along with comprehensive language support is essential to maximize the success of EMI.

Regarding Asta Cita, on points that include strengthening the development of human resources (HR), science, technology, education, health, sports achievements, gender equality, and strengthening the role of women, youth, and people with disabilities. At this point, PKM activities can contribute to improving the quality of education, namely through the implementation of EMI, teachers are equipped with the ability to teach in English, which will increase their competitiveness and the quality of learning. 2. Teacher Professional Development: Collaborative teaching schemes become a means of real practice-based training, increasing the capacity of teachers in modern learning methods. 3. Strengthening Globally Minded Human Resources: EMI encourages international language mastery and readiness to face global education challenges, in accordance with Asta Cita's vision for superior human resources.

The purpose of implementing EMI (English as Medium of Instruction) Integration activities through a collaborative teaching scheme is to improve the quality of teachers. In addition, this program also targets to improve the quality of teachers by using English in teaching in the classroom. This activity improves the quality of teachers through the EMI approach and collaboration in teaching, emphasizing on improving the quality of teacher education and training, as well as mastering 21st century skills including foreign languages in line with the Sustain Development Goals (SDGs). Competent teachers in EMI will produce students with global competitiveness, supporting the improvement of human resources for a quality job market. It is also related to the professional development of the workforce in the education sector.

The connection with IKU is by involving students as facilitators who accompany teachers and students in the EMI integration process. These student activities contribute to IKU 2, namely students gain experience outside the campus and will be recognized as many as 6 credits. In addition to IKU 2, IKU 3 is lecturers who carry out off-campus activities and this contributes to IKU 5 in the form of publication outputs in SINTA-accredited journals.

The focus of Community Service is to improve the quality of education in accordance with SGDs, namely quality education by conducting EMI training for teachers in public schools so that they can compete using English, until it becomes normalization in classroom learning activities. This service activity aims to have a significant impact not only on teachers, schools, but also on students who will directly be the target of the application of teachers' ability to use EMI.

2. Methods

The stages or steps in implementing the solutions offered based on previous research are:

2.1. Socialization

Purpose:

Build an initial understanding and shared commitment on the importance of EMI and the Collaborative Teaching Scheme model.

Activities:

- a. Initial meetings with school principals and teachers to explain the urgency of implementing EMI.
- b. Delivery of the objectives and benefits of the EMI integration program through a collaborative scheme.
- c. Open discussions to map the needs and readiness of teachers.
- d. The formation of a school-lecturer work team for the sustainability of the program.

2.2. Training

Purpose:

Improve teachers' knowledge and skills in implementing EMI in a practical and collaborative manner.

Activities:

- a. Workshop on the basic concepts of EMI, bilingual teaching principles, and the role of language in learning.
- b. Collaborative Teaching technique training: co-teaching, peer observation, and lesson study.
- c. Teaching simulation using EMI with the guidance of the facilitator.

2.3. Application of Technology

Purpose:

Supporting the improvement of teachers' competence in implementing EMI collaboratively through the use of technology and digital modules.

Activities:

- a. Distribution and Training Module 1: "Collaborative Teaching Scheme using EMI"
 - 1) This module contains technical guidance on collaborative schemes in EMI-based teaching.
 - 2) The material includes forms of co-teaching, lesson study stages, teamwork strategies, and examples of implementation in the classroom.
 - 3) Teachers are given access to digital modules through Google Drive-based platforms or school LMS.
 - 4) Interactive workshop for hands-on simulation of module use.
- b. Distribution and Training Module 2: "EMI Integration in the Classroom"
 - 1) This module focuses on the application of EMI in subjects, including scaffolding techniques, the use of target language, and visual/verbal strategies for students.
 - 2) Contains examples of EMI-based lesson plans, student worksheets, and bilingual digital teaching materials.
 - 3) Teachers are trained to customize teaching materials and practice creating content with the help of technology (e.g., Canva, AI tools, or interactive PPTs).
- c. Use of Collaborative Technology:
 - 1) Teachers are taught to use tools such as Google Docs, Padlet, and Canva Edu to create and share materials.
 - 2) Each group of teachers made preparations for EMI-based microteaching that were uploaded on the shared platform.
 - 3) Storing teachers' work in digital repositories as independent learning materials and dissemination.

2.4. Mentoring and Evaluation

Purpose:

Provide direct support to teachers when implementing EMI in the classroom and conducting ongoing evaluations.

Activities:

- Peer mentoring activities between teachers who are able to and those who are still learning.
- The lecturer and team conducted class observations and provided feedback.
- Periodic reflection forum between teachers.
- Cycle evaluation: planning, implementation, and reflection (EMI-based Lesson Plan).

2.5. Program Sustainability

Purpose:

Ensure that the program continues to run and develop independently in the school.

Activities:

- The formation of a team of EMI teachers in schools as an agent of change.
- Making SOPs or EMI Collaborative Teaching guidelines in schools.
- Further collaboration with LPTK or campus partners for further training.
- Dissemination of the results of good practices to other schools.

3. Result and Discussion

3.1. Result

Analysis of pre-test and post-test data given to 23 teachers of SMA Negeri 5 Gowa showed an increase in ability in all dimensions measured. In general, the average pre-test score is in the range of 2.65–2.78 (fairly low category), while the average post-test score increases significantly to the range of 3.74–4.09 (high category). The overall average increase reached +1.27 points.



Figure 3. Delivery of EMI Training Materials and Collaborative Teaching Scheme

The four dimensions measured show a consistent pattern:

a. EMI Capabilities

The average score increased from 2.70 to 3.91 with an increase of **+1.25 points**. The biggest improvement was in the statement "I can use the English vocabulary correctly when teaching" (+1.35). This shows that teachers are increasingly confident in using academic English that is relevant to the subject.

Table 1. EMI Capabilities

Yes	Statement	Average Pre-Test	Post-Test Average	Increased
1	I can open the lesson with EMI phrases (example: Today, we are going to learn...Düssel	2.70	3.91	+1.22
2	I confidently explain the subject matter in English	2.74	4.00	+1.26
3	I am able to ask questions in English to provoke student discussion	2.65	3.91	+1.26
4	I can use the vocabulary of keywords in English appropriately when teaching	2.57	3.91	+1.35
5	I was able to help students understand the term EMI by providing simple clarifications	2.57	3.74	+1.17

b. Understanding Collaborative Teaching

The average score increased from 2.70 to 3.96 with an increase of +1.26 points. Teachers are increasingly understanding the various collaboration models, including One Teach–One Assist and Station Teaching, as well as knowing how to share progressive roles with peers.

Table 2. Understanding Collaborative Teaching

Yes	Statement	Pre-Test Average	Post-Test Average	Increased
6	I understand various collaborative teaching models (One Teach–One Assist, Station, Alternative, One Observe)	2.70	3.96	+1.26
7	I know how to divide progressive roles with couples teachers	2.65	3.87	+1.22
8	I understand the concept of peer-mentoring in EMI	2.70	3.96	+1.26
9	I know the strategy of using L1 appropriately to support EMI	2.74	4.04	+1.30
10	I can explain the difference between the main and supporting roles in team teaching	2.70	3.96	+1.26

c. Collaboration Implementation

This dimension recorded the largest increase, from 2.73 to 4.01 (+1.29). The statements with the highest increase were "I was able to design a 20-minute EMI micro-lesson collaboratively" and "I was able to provide clear collaborative instruction with a partner teacher", both with an increase of +1.31. This indicates that teachers not only understand the concept of collaboration, but also begin to be skilled in applying it.

Table 3. Collaboration Implementation

Yes	Statement	Pre-Test Average	Post-Test Average	Increased
11	I was able to design a 20-minute EMI micro-lesson collaboratively	2.78	4.09	+1.31
12	I was able to set SMART language targets in EMI's learning plan	2.74	4.04	+1.30
13	I feel comfortable teaching alternately with fellow teachers	2.65	3.91	+1.26
14	I was able to support students in small groups while still maintaining EMI consistency	2.70	3.96	+1.26
15	I can provide clear collaborative instruction with a couple teacher	2.78	4.09	+1.31

d. Effectiveness and Feedback

The average score increased from 2.71 to 4.00 (+1.28). Teachers feel that collaboration can improve the quality of learning, student involvement, and effectiveness in giving and receiving feedback. This improvement is important because it shows that collaborative teaching serves not only to support teachers, but also to have a direct impact on students' learning experiences.

Table 4. Effectiveness and Feedback

Yes	Statement	Pre-Test Average	Post-Test Average	Increased
16	I feel that collaboration with fellow teachers improves the quality of EMI learning	2.74	4.04	+1.30
17	I am able to give structured feedback to my fellow teachers after teaching	2.70	3.96	+1.26
18	I was able to receive feedback from fellow teachers and use it for improvement	2.65	3.91	+1.26
19	I believe collaboration increases student engagement in EMI classrooms	2.70	3.96	+1.26
20	I believe collaborative teaching makes EMI easier to implement	2.74	4.04	+1.30

3.2. Discussion

The results of this study show that Collaborative Teaching-based training **using** EMI can significantly improve teacher competence in a relatively short time. The improvement in the EMI Ability dimension supports the findings of Curle et al. (2020) who stated that structured training is able to improve teachers' confidence in using academic English. Teachers who were initially hesitant are now starting to be more courageous to open lessons with EMI phrases and use vocabulary keywords.



Figure 4. Group Photo of Teachers and Students of SMA Negeri 5 Gowa

On the dimensions Understanding Collaborative Teaching, teachers are able to recognize and understand the variations of collaboration models. This is in line with research (Cook & Friend, n.d.) which emphasizes that *Team Teaching* It is effective if teachers clearly know their roles. A good understanding of the collaboration model also allows for a fairer and more progressive distribution of roles, so that the learning process becomes smoother.

The Collaboration Implementation dimension recorded the highest increase. This shows that *the micro-teaching* practices given during training are the key to success. With a real simulation for 20 minutes, teachers have the opportunity to try different roles so that the learning experience becomes more meaningful. These findings support the opinion of Uehara & Kojima (2021) who affirm that *hands-on practice* is essential in improving teachers' skills in collaboration.

The final dimension, Effectiveness and Feedback, has also seen consistent improvements. Teachers not only feel more effective in teaching together, but also develop *a culture of peer feedback*. This is important because according to Lu (2022), *peer feedback* accelerates the process of professional reflection and helps teachers improve their weaknesses in an ongoing manner. Thus, collaboration between teachers not only improves the quality of EMI, but also builds a more supportive learning ecosystem.

Overall, these results confirm that the EMI-based Collaborative Teaching Scheme is an effective strategy to improve the competence of high school teachers in facing the demands of education globalization. This activity also shows how the Participatory Action Research (PAR) approach is able to have a direct impact because it actively involves teachers in the process of reflection and practice.

4. Conclusion

Community service activities at SMA Negeri 5 Gowa through the Participatory Action Research (PAR) approach prove that the implementation of *Collaborative Teaching* based on English Medium Instruction (EMI) is able to significantly increase the capacity of teachers. The results of the pre-posttest survey of 23 teachers showed an average increase of +1.27 points across all dimensions: EMI ability, understanding of collaborative teaching, implementation of collaboration, and effectiveness and feedback. This shows that the program not only strengthens teachers' English skills, but also builds confidence and a better understanding of collaborative learning strategies.

In addition, this activity fosters a peer-mentoring culture that has an impact on creating a more reflective, inclusive, and globally competitive learning ecosystem. These findings affirm the importance of institutional support and program sustainability so that EMI-based collaborative teaching practices can be applied more widely in Indonesian secondary schools. Thus, PAR-based service not only provides short-term skill improvement, but also prepares teachers to face the demands of educational globalization that are in line with the *Merdeka Learning policy* and SDGs targets.

Acknowledgements

The implementation team of the Community Service Program would like to express its deepest gratitude to the Directorate of Research and Community Service (DPPM), the Directorate General of Higher Education, Research and Technology, Ministry of Higher Education, Science and Technology (Kemdiktisaintek) for providing financial assistance so that this activity can be carried out properly. In addition, thanks are also expressed to the State University of Makassar (UNM) through the Institute for Research and Community Service (LP2M) for their direction and input so that the output of this activity can be maximized.

References

- Affandi, A., Fadlih, A. M., Nurfadhilah, A. S., Nur, M. S., & Fakhri, M. M. (2024). Increasing EMI (English As Medium of Instructions) in Forming Competitive Teachers and Standardized Teaching to Achieve Quality Education Based on SGDs. *A Journal of Community Service*, 4(3).
- Chuang, Y. (2015). An EMI Pedagogy That Facilitates Students' Learning. *English Language Teaching*, 8(12), 63. <https://doi.org/10.5539/elt.v8n12p63>
- Cook, L., & Friend, M. (n.d.). Co-teaching: Guidelines for creating effective practices. *Focus on Exceptional Children*, 28(3), 1–16 .,
- Curle, S., Yüksel, D., Soruç, A., & Altay, M. (2020). Predictors of english medium instruction academic success: english proficiency versus first language medium. *System*, 95, 102378. <https://doi.org/10.1016/j.system.2020.102378>

- Friend, M., & Cook, L. (2016). *Interactions: Collaboration skills for school professionals* (7th ed.). Pearson.
- ELbashir, B. (2024). The Effect of EMI on the Academic Achievement of Engineering Students: A Case of A' Sharqiyah University, Oman. *International Journal of English Language and Linguistics Research*, 12(2), 18–32. <https://doi.org/10.37745/ijellr.13/vol12n21832>
- Hoang, N., Bui, T., Le, D., & Pham, V. (2022). Students' challenges on learning emi courses at a technical university in vietnam: an investigation from students' voices. *Proceedings of the Asiaccall International Conference*, 1, 131–151. <https://doi.org/10.54855/paic.2319>
- Kamaşak, R., & Şahan, K. (2023). Academic Success in English Medium Courses: Exploring Student Challenges, Opinions, Language Proficiency and L2 Use. *Relc Journal*, 55(3), 705–720. <https://doi.org/10.1177/00336882231167611>
- Kang, A., Yoona, L., & Murdoch, Y. D. (2023). The Value of Reading Circles in EMI Class: Engagement, Usefulness, and Outcomes. *Sage Open*, 13(2). <https://doi.org/10.1177/21582440231179681>
- Lee, Y. (2023). Achieving success in english medium instruction using computer - mediated terminology pretraining under the problem - based learning pedagogy. *Journal of Computer Assisted Learning*, 39(3), 921 - 934. <https://doi.org/10.1111/jcal.12777>
- Lee, J. (2023). Teacher confidence in EMI and its impact on instructional effectiveness. *TESOL Quarterly*, 57(2), 456–478.
- Lin, T., & Lei, J. (2021). English-Medium Instruction and Content Learning in Higher Education: Effects of Medium of Instruction, English Proficiency, and Academic Ability. *Sage Open*, 11(4). <https://doi.org/10.1177/21582440211061533>
- Lu, X. (2022). Peer collaboration and feedback in EMI classrooms: Implications for teacher development. *Journal of Applied Linguistics*, 45(3), 200–215.
- Macaro, E., Curle, S., Pun, J., An, J., & Dearden, J. (2018). A systematic review of English medium instruction in higher education. *Language Teaching*. <https://www.cambridge.org/core/journals/language-teaching/article/systematic-review-of-english-medium-instruction-in-higher-education/E802DA0854E0726F3DE213548B7B7EC7>
- Peng, J., & Xie, X. (2021). English-Medium Instruction as a Pedagogical Strategy for the Sustainable Development of EFL Learners in the Chinese Context: A Meta-Analysis of Its Effectiveness. *Sustainability*, 13(10), 5637. <https://doi.org/10.3390/su13105637>
- Pun, J., & Jin, X. (2021). Student challenges and learning strategies at hong kong emi universities. *Plos One*, 16(5), 251564. <https://doi.org/10.1371/journal.pone.0251564>
- Uehara, S., & Kojima, H. (2021). Team teaching and peer mentoring in EMI contexts: Lessons from practice. *International Journal of Educational Research*, 109, 101823.
- Zou, B., Wang, X., & Yu, C. (2022). The Impact of Sino-Foreign Cooperative Universities in China on Chinese Postgraduate Students' Learning Performances in the United Kingdom and United States. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1012614>