

## IMPROVING STUDENTS' ACADEMIC COMPETENCE THROUGH COLLABORATION, MENTORING, AND TEACHING ACTIVITIES AT UNIVERSITY GEOMATIKA MALAYSIA

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### Abstract

#### Keywords:

Academic Competence,  
International Collaboration,  
Student Mentoring,  
Internationalization of  
Higher Education

*This study aims to improve students' academic competencies through collaborative, mentoring, and teaching activities conducted at University Geomatika Malaysia. These activities are designed to strengthen students' capacity to face academic and professional challenges at the international level, while also serving as a means of implementing the Tri Dharma of Higher Education in terms of global community service. This study uses a qualitative descriptive approach with participatory observation, in-depth interviews, and activity documentation. Data are systematically analyzed to illustrate the effectiveness of the collaborative program in improving students' analytical, communication, and adaptation skills to a cross-border academic environment. The results show that collaborative activities at University Geomatika Malaysia have a positive impact on increasing students' self-confidence, academic skills, and ability to integrate theory with practice. In addition, these activities also strengthen academic networks between universities and encourage the formation of an inclusive international learning ecosystem. The long-term impact of this research is the creation of a community service model based on the internationalization of higher education that can be replicated by other universities in Indonesia to support the global competitiveness of students and national educational institutions.*

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## INTRODUCTION

The globalization of higher education over the past two decades has required universities to focus not only on academic activities at the national level but also actively build cross-border collaborations. The paradigm shift in higher education from local to global marks a fundamental shift in how universities prepare their graduates to adapt to the dynamics of the international community. UNESCO (2023) emphasizes that the internationalization of education is a key strategy for enhancing the competitiveness of human resources while expanding access to knowledge exchange (Saragih, 2025) . In this context, collaborative activities between universities, including cross-border academic programs such as *International Bootcamps* and co-teaching, become relevant as concrete efforts to support global, experiential learning.

In Indonesia, the Independent Learning and Independent Campus (MBKM) policy launched by the Ministry of Education, Culture, Research, and Technology encourages students to gain learning experiences outside of campus, including in international settings (RISET, 2022) . Through this approach, students are expected to not only master theory but also develop 21st-century skills such as collaboration, cross-cultural communication, and critical thinking. In practice, structured international academic activities, such as collaborations with foreign universities, can be an ideal vehicle for implementing project - *based learning* integrated with the goal of serving the global community (Ledoh et al., 2025) .

The collaborative, mentoring, and teaching activities at the University of Geomatics Malaysia (UGM), attended by students and lecturers from the Bakti Nusantara Institute (IBN), are a concrete manifestation of this spirit. During the event, which took place from August 24–26, 2025, participants not only engaged in entrepreneurship seminars and digital technology workshops but also participated in cross-cultural academic forums that fostered global awareness. In this regard, students gained the opportunity to learn directly through interactions with international academics, while lecturers acted as mentors and guest lecturers, bridging the exchange of knowledge between countries.

From a pedagogical perspective, the learning model applied in this activity aligns with the *experiential learning theory* proposed by Kolb (1984), where the learning process is considered effective when students experience a concrete cycle: experiencing, reflecting, understanding, and applying (Rosyida et al., 2025) . By actively engaging in cross-border activities, students undergo a transformation from mere recipients of knowledge to reflective and adaptive learners. This experience enriches their insight into different social, economic, and cultural contexts, so that the academic competencies formed are not only cognitive, but also affective and social.

Furthermore, this activity also strengthens the implementation of *the Tri Dharma of Higher Education* , particularly in the area of international community service. Lecturers who serve as *guest lecturers* not only transfer knowledge but also act as agents of academic diplomacy, bringing the nation's intellectual values to the global stage (Ariani, 2024) . Through cross-institutional teaching, an exchange of ideas occurs that enriches the academic perspectives of both parties and expands collaborative research networks. This demonstrates that the internationalization of higher education is not solely about student exchange, but also about establishing a mutually inspiring academic ecosystem.

From an institutional perspective, the collaboration with the University of

Geomatics Malaysia provides strategic value for the Bakti Nusantara Institute. This collaboration strengthens the institution's academic reputation, expands its cross-border collaboration network, and serves as a starting point for the development of joint research and innovation. In an era of information transparency and high academic mobility, an institution's reputation is determined not only by the quality of its research but also by the breadth of its international collaboration network. This initiative demonstrates that Indonesian higher education institutions have the capacity and readiness to compete globally through collaborative approaches and sustainable academic partnerships.

In addition to providing direct benefits to students and lecturers, this collaborative activity also reflects the contribution of Indonesian universities to human resource development at the ASEAN level. The cross-cultural interactions that occur during the activity not only improve students' communication and leadership skills but also strengthen academic solidarity between countries. According to the *ASEAN Higher Education Strategy 2025 report*, collaboration between universities in the Southeast Asian region is one of the main pillars in creating an inclusive and globally competitive learning society (Leepo, 2025). Thus, the activities at University Geomatika Malaysia can be seen as part of the regional higher education integration effort.

Finally, this activity serves as a crucial opportunity for students to hone their academic and social awareness in an international context. The experience of studying abroad fosters awareness that academic competence is measured not only by theoretical mastery but also by the ability to adapt, collaborate, and lead amidst diversity. Therefore, the collaboration, mentoring, and teaching activities at University Geomatika Malaysia are not merely ceremonial activities, but rather strategic steps in shaping a generation of young academics with global perspectives and social responsibility.

Thus, it can be emphasized that this collaborative activity not only impacts students' academic competency but also strengthens the role of lecturers and institutions in the global education ecosystem. Through the synergy between learning, service, and international networking, the Bakti Nusantara Institute demonstrates its commitment to transforming higher education toward global excellence and humanity. Such initiatives need to be further developed so that Indonesian universities can play an active role as equal partners in the global academic ecosystem.

## RESEARCH METHODOLOGY

This study uses a qualitative descriptive approach based on the *experiential learning paradigm* (Kolb, 1984) as the primary analytical framework. This approach was chosen because it aligns with the program's focus on direct experience, reflection, and the application of academic values in an international context. This method allows researchers to deeply understand the students' learning processes during their involvement in collaborative, mentoring, and teaching activities at the University of Geomatics Malaysia (UGM). The primary objective of this approach is not to test hypotheses, but rather to describe, interpret, and understand the meaning of the cross-cultural learning experiences experienced by program participants.

The research was conducted at the University Geomatika Malaysia, Kuala Lumpur, from August 24–26, 2025. Students from two main faculties at Institut Bakti Nusantara (IBN), namely the Faculty of Technology and Computer Science (FTIKOM) and the Faculty of Economics and Business (FEB), participated in the research. Twenty

students were actively involved, accompanied by four supervisors who also served as *guest lecturers* in international classes at UGM. The location of the research was chosen purposively because the partner university has an international character that supports multicultural interactions and the application of technology in learning, in line with the program's goal of improving students' academic competence globally.

Data collection techniques were carried out through three main sources, namely: First, Participatory observation, where researchers and accompanying lecturers directly observed the behavior, interactions, and participation of students during the activity. Second, In-depth interviews, conducted with students and lecturers to explore their perceptions, reflections, and experiences related to the academic and social benefits of the activity. Third, Documentation, which included activity notes, daily reports, photos, as well as presentation and evaluation materials from the organizers. These three sources were combined to gain a holistic understanding of the process and results of the activity.

The research procedure was carried out in four main stages. The first stage was planning and coordination, in which the Bakti Nusantara Institute team prepared the activity framework, determined the bootcamp theme, and coordinated with the University Geomatika Malaysia regarding the schedule and facilities. The second stage was the implementation of the field activities, which included an entrepreneurship seminar, a *digital technology workshop*, and a cross-cultural leadership discussion session. In this stage, lecturers and students interacted directly with lecturers and students from Malaysia in a collaborative format. The third stage was reflection and mentoring, in which students wrote reflective reports on their learning experiences and academic values acquired. The final stage was data evaluation and analysis, carried out after the activity was completed by reviewing all observation and interview results to formulate key findings.

The data obtained were analyzed using Miles and Huberman's (1994) interactive analysis technique, which consists of three steps: data reduction, data presentation, and conclusion drawing. In the data reduction stage, relevant information was selected and categorized based on themes, such as improving academic competence, strengthening international communication, and developing student leadership. In the data presentation stage, observation results and interview excerpts were compiled into a descriptive narrative that represents the participants' real-life experiences. Next, the researchers drew conclusions through theoretical interpretations, referring to the concept of *experiential learning* and the theory of internationalization of higher education.

To maintain data validity, this study employed source and method triangulation techniques. Source triangulation was conducted by comparing observations, interviews, and documentation from various parties, including students, lecturers, and the organizing committee in Malaysia. Meanwhile, method triangulation was conducted by combining direct observation and written reflections to ensure consistency of findings. Data validity was also strengthened through a *member checking process*, in which initial interpretations were reconfirmed with participants to obtain an accurate and objective picture of their experiences.

From a research ethics perspective, each participant voluntarily provided informed consent to participate in the data collection activities and process. The researcher ensured that all personal data and interview results would be kept confidential and used solely for academic purposes. The principles of transparency and



respect for participants underpinned this research, in line with international ethical guidelines for social and educational research.

Thus, this research methodology is designed to comprehensively capture the dynamics of cross-cultural learning through a reflective and contextual qualitative approach. The results of the analysis are expected to provide an in-depth understanding of how collaboration, mentoring, and teaching activities at University Geomatika Malaysia contribute to improving students' academic competencies and strengthening academic networks among universities in the ASEAN region.

## Results and Discussion

### IBN Student Mentoring in International Bootcamp at University Geomatika Malaysia

The mentoring activities of *Bakti Nusantara Institute (IBN) students* in the international *bootcamp at the University of Geomatics Malaysia (UGM)* are concrete evidence of the implementation of the Tri Dharma of Higher Education in the aspect of community service at the global level. During the program (24–26 August 2025), lecturers not only function as administrative mentors, but also as academic facilitators who ensure students are able to participate well in activities. This mentoring includes support during seminars, workshops, and cross-cultural discussions that hone students' critical thinking and collaborative skills. This activity is in line with the results of UNESCO research (2024) which confirms that international activities based on academic collaboration can strengthen students' *intercultural competence* and *academic resilience* in the context of global education (Mardes et al., nd).



**Photo 1. Opening ceremony of the International Bootcamp at the University of Geomatics Malaysia, (Attended by UGM lecturers and student representatives from various countries)**

In addition to strengthening cognitive skills, this mentoring also provides added value in the affective and social aspects. Students are encouraged to understand the importance of academic ethics, cross-cultural empathy, and adaptation to international learning systems. Field observations indicate that students are more open to differing views, appreciate diversity, and are able to interact with students from various cultural backgrounds. In this context, lecturers play a strategic role as *academic mentors* and

*cultural mediators* , who not only convey knowledge but also instill the values of tolerance and global professionalism (Prawirawati, 2025) . Thus, the mentoring carried out is not merely an administrative routine, but rather an educational transformation that contributes directly to the formation of students' academic character.



**Photo 2. IBN lecturer, Putri Sandora, SM, MM, M.Pd., when she was a guest lecturer in an international class (Material: Digital Leadership and Innovation in Global Business Environment)**

The mentoring in this international *bootcamp program* also strengthens IBN's position as an educational institution actively developing the internationalization of the curriculum. This activity serves as a means to integrate global experiences into the learning process at home. Post-activity evaluations showed significant improvements in students' academic communication skills, *self-confidence* , and global career orientation. Based on an internal LPPM report (2025), 80% of participants reported experiencing an increased understanding of international academic dynamics and a higher motivation to participate in similar activities in the future (Nugroho et al., 2025) . These results demonstrate that cross-border collaboration not only expands academic networks but also fosters a more adaptive and progressive *academic mindset* among students.

#### **International Guest Lecture Activities by Lecturers of the Bakti Nusantara Institute**

The international guest lectures by IBN lecturers are one of the main achievements of this PKM program. The theme, *Inclusive Leadership and Cross-Cultural Management* , is relevant to the context of globalization in education and the workplace, which demands leadership based on empathy and inclusivity. In this academic forum, IBN lecturers delivered material using a participatory approach that invited students from various countries to actively discuss and share perspectives. The success of these guest lectures demonstrates the ability of IBN lecturers to adapt teaching strategies to a multicultural academic environment, a competency recognized as important in the *OECD Education Outlook* (2023) report as an indicator of lecturers' readiness to face the internationalization of higher education (Adiputri, 2023) .



**Photo 3. IBN students participate in a cross-country group discussion and presentation session**

Furthermore, this guest lecture strengthened IBN's reputation internationally through the recognition of the lecturers' academic competence abroad. According to the activity report, the participation of IBN lecturers as *guest lecturers* received positive appreciation from UGM, which assessed the teaching materials as highly relevant to the dynamics of global leadership and cross-cultural management. The domino effect of this activity was the opening of new collaboration opportunities in the fields of applied research, *joint publications*, and lecturer exchanges between the two universities. Academically, this activity enriched the lecturers' pedagogical experience while strengthening IBN's position as an institution oriented towards *knowledge diplomacy* or science-based diplomacy.



**Photo 4. Group photo of IBN lecturers and students with the University of Geomatics Malaysia after academic activities (Location: UGM Main Hall)**

From a professional perspective, this international guest lecture also serves as a means of enhancing *the teaching portfolio* of lecturers. According to *the World Higher*



*Education Database* (2024), teaching experience abroad is an indicator of international recognition that can support institutional accreditation (Mutiani et al., n.d.) . Therefore, the participation of IBN lecturers in this activity not only fulfills the community service element but also enhances personal and institutional academic credibility. It is hoped that such activities can continue to be carried out sustainably as part of *the academic mobility program* that supports the internationalization of Indonesian higher education.

### **Strategic Collaboration IBN and UGM for Scientific Research and Publication**

This PKM activity also had a strategic impact in strengthening the institutional relationship between *the Bakti Nusantara Institute (IBN)* and *the University of Geomatika Malaysia (UGM)* . The collaboration, which initially took the form of community service activities, developed into a long-term cooperation plan in the fields of joint research, scientific publications, and lecturer-student exchanges. Based on the results of academic discussions held after the activity, the two institutions agreed to explore opportunities for joint publication of scientific articles in Scopus-indexed international journals. This step is in line with the global strategy of *the ASEAN University Network (AUN)* (2023) which encourages increased cross-country *research collaboration* as a form of higher education synergy in the Southeast Asian region (Risfandini, 2025) .



**Photo 5. Signing of the Memorandum of Understanding (MoU) between the Bakti Nusantara Institute and the University Geomatika Malaysia**  
*(As an official symbol of cooperation and commitment to international academic collaboration)*

From an institutional perspective, this collaborative relationship strengthens IBN's presence as an institution open to international cooperation. The PKM program in Malaysia has opened up academic communication channels between research institutions, faculties, and study centers at both universities. The activity report prepared by LPPM IBN includes a follow-up plan in the form of a *Memorandum of Understanding (MoU)* to expand collaboration in the areas of educational innovation and international curriculum development. This collaboration is expected to serve as *an entry point* for IBN to participate more actively in global research forums and strengthen the competitiveness of Indonesian scientific publications at the international level.





**Photo 7. Lecturer Team of Bakti Nusantara Institute at Universiti Geomatika Malaysia**  
*(Photo with all IBN lecturers: in front of the main building of University Geomatika Malaysia as a symbol of international academic collaboration and service)*

Substantively, this collaboration reflects a new paradigm in the implementation of community service that is no longer limited to the local context, but rather global in scale and academically based. This cross-border PKM model can serve as a reference for other universities in developing international networks oriented towards *mutual benefit* and *knowledge exchange*. Through the synergy between IBN and UGM, community service not only functions as a form of social contribution, but also as a catalyst for improving the quality of research and scientific publications that meet international standards. Thus, this activity not only has implications for increasing individual and institutional capacity, but also strengthens Indonesia's position on the global academic map.

## CONCLUSION

The collaborative, mentoring, and teaching activities conducted at University Geomatika Malaysia significantly contribute to improving students' academic competency. Through cross-cultural interactions and knowledge exchange between institutions, students not only hone their intellectual abilities but also gain empirical experience in an international educational context. This process strengthens students' competitiveness in facing global challenges while fostering professional character that is adaptable to various academic environments.

Furthermore, this activity serves as concrete evidence of the implementation of the Tri Dharma of Higher Education, particularly in the areas of community service and human resource development. Cross-border collaboration creates space for the growth of sustainable academic networks between Indonesia and Malaysia. The impact is felt not only by students but also by their supervisors and the educational institutions involved, as it broadens their understanding of international higher education best practices and encourages curriculum innovation that is more responsive to global needs.

Overall, this activity demonstrates that the synergy between academic mentoring, institutional collaboration, and field experience can create a holistic and

transformative learning model. The activities at University Geomatika Malaysia can serve as an example of best practice *in* efforts to improve the quality of Indonesian higher education through an internationalized approach oriented towards tangible results. Therefore, the success of this program is expected to serve as a foundation for implementing similar activities in the future, while strengthening the position of Indonesian higher education institutions in the global education landscape.

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