

Development of sustainability-oriented international class to increase environmental awareness

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Abstract. This study falls under the category of development research, with the goal of creating an international class guide model focused on sustainable development to raise students' environmental consciousness. The management of foreign class activities in the Faculty of Education is not ideal and still facing challenges, according to the field. The challenges are as follows: 1) students' limited awareness of the global warming issue; 2) ineffective English communication; 3) students' inadequate preparation for participating in activity programs overseas; 4) the execution of international activities has not proceeded optimally; and 5) ineffective evaluation activities. R&D (research and development) is a research methodology that is used in this method to carry out product testing, development, and research based on needs analysis. This study findings indicate that 88.5% of the development results in the form of worldwide training recommendations that can be implemented internationally. The model elements, content suitability, constructs, language, practicality, and writing organization are all demonstrated by the results of a questionnaire given to experts and model users; the model, with an average score of 82.8%, is highly valid for use in the Faculty of Education at Universitas Negeri Surabaya.

1 Introduction

The University internationalization and higher education management based on innovation, information technology use, intelligence, global orientation, and graduates and research findings that society can apply are essential to the development of higher education in the age of globalization worldwide [1, 2]. A new trend in evaluating the quality of higher

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education from a variety of angles and points of view, including the reputation that universities can transparently achieve, is to determine higher education rankings at both the international level (World Class University) and the Indonesian or ASEAN national level through the Web Ranking of Universities from various continents.

The term "internationalization" in higher education describes initiatives to improve communication, co-ordination, and co-operation between academic communities and institutions around the globe [3]. The Faculty of Education at Universitas Negeri Surabaya is one of several faculties tackling internationalization projects in response to this institutional issue. One such endeavor is the creation of an international class model based on global cooperation. Seven undergraduates, seven master's, and three PhD study programs are among the seventeen study options that FIP UNESA provides. The Elementary Teacher Education and Educational Management study program at the Faculty of Education began offering foreign courses in 2022. Evaluation data, however, shows that the internationalization class program has not been successful, as 57% of participants report facing significant obstacles, such as a lack of resources for English language instruction.

The intentional creation of learning settings that support the acquisition of knowledge, abilities, and behaviors are known as classroom management [4]. An international class is an endeavor to improve the productivity and caliber of human resources (HR) to a higher level of competency and global competitiveness. Indonesian universities are currently putting new systems into place to improve the administration of education [5]. The changes may do more than only restructure the educational system; they also give teachers superior language proficiency. In order to complete globally, educators need to prepare their students for three things: a) carriers in science-related fields; b) being able to teach English as a second language and be proficient in active communication; and c) having a working knowledge of technology.

Accordingly, the Faculty of Education is changing the paradigm by improving the caliber of educators through classes that meet international standards. The goal of this global course is to improve students' knowledge of environmental issues as well as their analytical thinking, English communication, and global interaction skills [6]. The following competencies are required of both lecturers and students in international classes: 1) awareness of global issues, especially those related to the environment; 2) proficiency in English communication; 3) capacity for international collaboration; and 4) capacity for international competition worldwide, and 5) the capacity to travel and take part in international activities. But expectations and reality in the field diverge, suggesting that the Faculty of Education's previous attempt to introduce international classes did not go smoothly. There are still challenges with managing international classes that arise during training sessions [7]. These challenges include inadequately structured management, which starts with subpar participant recruitment efforts, inadequate management of international classes, subpar English proficiency among students, improper activity monitoring, and poor communication skills. Even so, lecturers who use English in the classroom are not fluent.

The international class model, which was previously used at the Faculty of Education, is crucial to study because the gap phenomena in the area refers to the discrepancy between theoretical and empirical expectations and reality. One of the issues demonstrating that the implementation of international classes is not ideal because of non-systematic and non-measurable management is the gap phenomenon [8].

The Faculty of Education conducted a field study in February 2024, and the results show that a number of lecturers who taught foreign classes in the classroom faced a number of difficulties, including 1) inadequate international programs and 2) an unfinished curriculum.

Several learning tasks show optimality even when they do not go as expected. Furthermore, students are using English less frequently when speaking.

Apart from that, it cannot be used as a guide for executing programs in foreign classes according to the guidelines for doing so that have already been approved by the Faculty of Education. The fact that the three management functions—planning, implementation, and evaluation—have not been carried out optimally can be used to evaluate the series of findings related to the factual model of international class management that has been previously implemented [9]. This is because: 1) the activities related to planning, implementation, and evaluation have not been structured and have not been adapted to the needs of students; 2) the mentoring program's implementation is still not optimal, as demonstrated by the findings of student interviews with international class participants, who reported a level of satisfaction with the learning series of only 52.5% in the medium category, indicating that it is still not optimal. Apart from that, the previous methods and strategies for teaching were still insufficient, which led to pupils acquiring knowledge and skills that were not optimal.

To optimise overseas training program operations, international class rules for the Faculty of Education must be prepared. Learning management, according to Syarifuddin [10], has the power to move and guide people towards their goals by making use of the potential of human and other resources. Implementing international standards for training activities can produce highly qualified human resources at the university level, leading to increased productivity. One could assume that the creation of a training model functions as a guide in a top-notch mentoring process, where the main emphasis is on developing human resources who are able to identify their strengths and weaknesses, choose the best career path for them, and offer practical experience in its application.

In this instance, researchers think that in order to improve students' environmental awareness as well as the productive skills and abilities of students and lecturers in international classes, it is imperative to create international class guidelines for the Faculty of Education that centre on sustainable development. This book's creation is a product with unique attributes, particularly a stronger focus on a holistic approach.

The development of guidelines for international classes centred on the SDGs is based on the Holistic Approach Theory. This is because holistic principles emphasize the active development of relationships at all levels, including those between individual and group learning domains, and they encompass all aspects of personal learning and growth. A holistic perspective considers a person's entire being, including their behavioural, emotional, and cognitive traits. This international class guide's overarching objective is to help people reach their full potential in a more enjoyable, multicultural learning environment that upholds democracy and humanism. Even experts consistently place these two human qualities at the centre of all pertinent issues.

A holistic approach, according to Shell et al. [11], is a comprehensive plan that involves all stakeholders and makes use of a range of complementary methods of presentation. In 2013, the holistic theory emerged, signifying the holistic-dynamic theory, which contends that individuals can move towards psychological well-being, particularly self-actualization, and that the whole person is inherently motivated by one or more desires.

2 Methods

This study's research approach makes use of the ADDIE guidelines and procedures. This research model aims to provide a process for creating and evaluating a product. Sugiyono [12] explains that the Borg and Gall research approach was adjusted and condensed into four stages: 1) preparatory stage, 2) model development stage, 3) trial stage, and 4)

implementation stage. To complete this initial phase, a qualitative descriptive technique was employed. At this point, the efforts are focused on determining the cause of the issues that arise in the field when using the earlier model that the Faculty of Education used. The field study activities are designed to: (1) identify the shortcomings of the previous international class model; (2) document the way that learning activities have been implemented in international classes using the previous model by examining the planning, execution, and assessment processes; and (3) pinpoint the barriers to learning that prevent international classes from implementing their curriculum as a foundation for improvement.

The subsequent phase involves the construction of a model. This model was constructed using a model design that was derived from field data gathered during the initial stages of research. This model is created by a three-step process: (1) planning, (2) implementation, and (3) evaluation. During the third stage, known as testing, the model, which has undergone validation by many experts, is evaluated in real-world conditions to assess its performance. The field trials yield the ultimate model, serving as a reference for foreign class models at the Faculty of Education with the aim of enhancing learning mobility. The third stage is the implementation phase, during which product users evaluate a prototype for delivering foreign language courses. This product underwent efficiency testing to gather feedback, enabling further product enhancements.

The research employs primary data, namely qualitative data collected directly in the field. This includes oral remarks obtained from multiple informants, including information from the Faculty of Education and overseas collaboration partners. Moreover, the data acquired is secondary data, specifically data obtained to supplement original data in the form of syllabus documents, images, and other notes that might serve as sources of data.

The methods used for data collection include interviews, Focus Group Discussion (FGD), questionnaire procedures, and documentation. Interview techniques were used to interview all the students and faculty members in the foreign classes at the Faculty of Education. The data received from expert evaluations was managed using the method of descriptive qualitative data analysis. This data analysis technique involves the categorisation of qualitative data, including comments, feedback, critiques, and suggestions for development [13]. Data analysis is employed to enhance the product. Data analysis in qualitative research can be conducted in the following manner: (1) Field-based data analysis involves doing analysis while data collection operations are still in progress. (2) This method is performed regularly and the data is retested. (3) Data analysis is conducted once data gathering is finished.

3 Result and Discussion

Prior to implementing the international class guide, researchers conducted interviews with students and teachers from foreign courses at the Faculty of Education. The interview was conducted to collect information regarding the difficulties faced while implementing educational activities in courses that involve participants from multiple nations. Students' attitudes and impressions towards learning in international classes, before the implementation of the international class guide development model, indicate that the level of student satisfaction with learning activities in international classrooms focused on Sustainable Development Goals (SDGs) encompasses: 1) Approximately 47.5% of respondents expressed a sense of happiness when participating in the events. 2) A majority of students (55%) stated that certain participants perceived the foreign class admittance selection process as inadequately organised. 3) A total 52.5% of the participants reported being dissatisfied with the learning activities during the activity; 4) A mere 55% of the students engaged in

active English communication. According to the results of these interviews, the average level of student satisfaction in foreign classrooms with learning activities is 52.5%, which falls within the medium range. This suggests that it is not at an optimal level [14]. Common challenges faced by instructors in international classrooms include a limited understanding of environmental and global matters, as well as an inadequate command of the English language [15]. These problems develop due to multiple variables, including: 1) training human resources in international courses that do not align with established guidelines and regulations, 2) inadequate communication skills (lack of fluency in English), and 3) absence of international activity programs. The curriculum and instructional methodologies should be optimised for the SDGs and should not be rigid or organised [16]. A student from the international class expressed challenges with classroom instruction and inadequate English communication (Interview, 19 February 2024).

Based on the results of an interview with a lecturer responsible for teaching in foreign classes, it was found that there are explicit communication and references on the implementation of learning in these lectures. Based on empirical research and observations, it can be concluded that the implementation of learning activities in international classes is suboptimal [17]. As a result, both lecturers and students often face challenges, such as a lack of active communication and insufficient coordination.

The outcomes pertaining to the factual learning paradigm utilised in past foreign classes at the Faculty of Education, Universitas Negeri Surabaya can be represented as follows:

1. Management Function

Based on the three management functions of planning, implementation, and evaluation, it is evident that they have not been carried out optimally. This is supported by findings in the field, which indicate the following: 1) The planning, implementation, and evaluation activities have not been properly structured and adapted to the needs of international class student analysis. There are no standards in place to determine prospective international class participants, which negatively impacts the

2. Personal

Several lecturers lack qualifications as teachers in international classes, thus necessitating specialised training to enhance their proficiency in English communication.

3. Facilities

Facilities to support learning activities before departure are good, previous briefing activities held at the Faculty of Science and Education have been supportive. To support learning activities in international classes that are more effective, learning activities should be held in rooms that are more comfortable and support learning activities, so that students have adequate access to learning.

The issues encountered by internationalisation program coordinators in developing study programs for international classes within the FIP environment involve ensuring consistent organisation of international standard activity programs in collaboration with foreign partners on an ongoing basis. To overcome the challenges faced in international classes, it is essential to offer comprehensive learning aids that specifically address the issues or inequalities that arise during international standard training activities. The development of the international class guide encompasses guidelines for recruiting participants from around the world, establishing mentor standards, designing training activities, tailoring learning methods to the specific needs of international class students, and implementing learning procedures in international classes. The hypothetical model transitions into an exploratory model as a result of an initial inquiry utilising empirical evidence. The framework for creating

recommendations for implementing learning in international courses for international class students comprises the following actions to enhance competency: 1) Soft abilities, 2) Technical skills, and 3) Cross-cultural skills. The establishment of a global standard manual is anticipated to offer a resolution to the difficulties encountered in previous educational experiences that were less than optimal. This global class guide was created to tackle three domains of managerial activity, which emphasize:

1. Planning

In the planning phase, several preparations must be made, such as establishing criteria for prospective overseas students that are tailored to the needs analysis. 2) Creating a curriculum that aligns with the international standard curriculum. 3) Developing a student learning model to enhance their competency in soft skills, hard skills, and intercultural skills. 4) Establishing competency standards, learning achievement indicators, and learning methods based on the analysis of international student needs. 5) Designing mentoring activities and evaluations for international classes.

2. Implementation

Execution Conducting recruitment efforts for potential students in international programs and organizing educational activities that align with globally recognized curricula.

3. Evaluation

The evaluation of international standard learning activities for lecturers abroad involves several stages. Firstly, questionnaires are distributed to international class students at the end of the semester to assess their satisfaction level after participating in the learning activities for one semester. Secondly, feedback activities are conducted through reflection sessions at the end of the training. Lastly, regular monitoring of mentoring activities takes place throughout the program implementation abroad. Monitoring is employed to verify the consistent quality of output following participation in worldwide standard training programs. Monitoring is conducted by administering questionnaires to participants upon completion of the program activities to assess participants' optimal performance in implementing the program abroad.

The development of a global training model guide for educators teaching Education Management abroad focuses on three key areas of managerial functions. Identifying the requirements for participation is crucial in order to determine the qualifications of prospective students in foreign courses, which is essential for the success of international standard training activities. The requirements for becoming a participant who will successfully complete the global standard training program selection are as follows: 1) A strong motivation for personal growth, 2) Proficiency in the English language, 3) A reliable and respected reputation, 4) Actively instructing in the Bachelor of Education Management program, 5) Offering solutions and guidance for problems, 6) Possessing current and relevant information, and 7) Having an open-minded perspective.

Table 1. Developed aspects of multinational class learning management

Management Aspects	Development
Planning	<ol style="list-style-type: none"> 1. Determine the requirements of the participants 2. Develop training objectives for lecturer 3. Create a debriefing strategy to be used before participants leave 4. Organizing participants (participant qualifications)
Implementation	<ol style="list-style-type: none"> 1. Introduction to the volunteering program

Management Aspects	Development
	2. Conducting training activities that adhere to international standards.
Evaluation	1. Following the completion of training activities, a placement qualification test is administered to assess the participants' competencies 2. Post program volunteer satisfaction survey 3. Subsequent action

In addition, prospective participants must possess certain qualities, including: 1) active listening skills, 2) a willingness to embrace diversity and cultural differences, and 3) reliability and adaptability to meet the needs of the volunteers. 4) Demonstrates strong motivation and enthusiasm in enhancing children's learning capacities, 4) possesses coaching or counseling skills, 5) exhibits proficiency in language (shared with other volunteers), and 6) has the ability to utilize a range of tactics, such as giving and receiving feedback, and facilitating non-formal learning. The subsequent passage outlines the globally accepted approach for the construction of training guides.

Table 2. Development Model Guidelines for arranging international courses are a set of instructions that provide a detailed description of how to structure and manage classes that involve participants from different countries.

Aspect	Previous Guide Model	International Training Guide developed
Planning	1. The objective of conducting foreign classrooms has not been aligned with the examination of student requirements. 2. The selection of potential participants continues to rely on suggestions or TEP testing.	1. The creation of learning objectives is tailored to the needs analysis of student requirements. 2. Categorizing potential pupils according to pre-established criteria and eligibility requirements. 3. Develop curriculum and establish standardized learning criteria for foreign classes. 4. Develop standard operating procedures (SOP) for the execution of evaluation and mentoring operations.
Implementation	1. Learning activities in international classes encompass the development of leadership abilities, interpersonal skills, and intercultural skills. 2. Execution of educational exercises to enhance proficiency in the English language before to departure	1. The learning activity process encompasses three distinct competencies: expertise in leadership, interpersonal skills, and intercultural abilities. 2. The learning technique enhances participants' proficiency in the English language using an informal methodology.
Evaluation	1. Regular assessments are not conducted, and the only evaluations that take place involve administering questionnaires to assess student satisfaction levels within a single	1. An assessment was conducted utilizing a performance exam that focused on evaluating the competency of leadership abilities, interpersonal skills, and intercultural skills. 2. Questionnaires were distributed to both students and lecturers.

Aspect	Previous Guide Model	International Training Guide developed
	semester of learning activities. 2. Systematic evaluation has not been conducted to ascertain the effectiveness of international programs.	3. Regular monitoring conducted by the international class coordinator of the program is used to assess the challenges and degree of achievement of activities.

Educational experts supplied validation data to develop informal-based learning models. By means of Focus Group Discussion (FGD) exercises. During the Forum Group Discussion (FGD), professionals who possess expertise and skills in management, such as educational management specialists and product user experts, will be provided with a questionnaire. This questionnaire will assess the significance, relevance, and effectiveness of the various components of the management model, as well as provide guidelines for a learning-based management approach [18]. The responses to the questionnaire will be utilized to examine and facilitate reflection activities about the development of a learning management model aimed at enhancing the proficiency of lecturers. The findings of the analysis and contemplation are displayed in the subsequent table:

Table 3. Displays the outcomes of the product Development Validation Questionnaire conducted with experts.

Aspect	Amount	Percentage%	Criteria	Information
Model Architecture Appropriateness Content	22.1	88.4	Very Good	Not Revised
Content Feasibility	17.4	87.0	Very Good	Not Revised
Construction Suitability	21.8	87.2	Very Good	Not Revised
Language	13.5	90.0	Very Good	Not Revised
Level of practicality	22.4	88.0	Very Good	Not Revised
Writing Organization	13.2	88.4	Very Good	Not Revised
Amount	110.5	88.5	Very Good	

4 Conclusion

The criteria for assessing the viability of the worldwide class implementation guide model are as follows: (1) Lecturers who teach foreign classes are driven to enhance their pedagogical expertise specifically for teaching in such classes. (2) Lecturers in foreign classes can create a favorable and enjoyable environment for teaching, allowing them to actively engage in communication during learning activities. (3) The mentoring and assessment tasks are conducted efficiently.

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