Empowering Guidance Studios to Enhance the Quality of Education for Migrant Children with Learning Monitoring System

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Abstract. This community service activity responds to issues in Non-Formal Education (NFE) supervised by the Embassy of the Republic of Indonesia (KBRI) in Kuala Lumpur. The issues involve: (1) existing curriculum in Guidance Studios, but reliance on inconsistent volunteer instructors is a barrier, and (2) volunteers' lack of understanding of teaching methods and specific policies related to the teaching process in the studios. The objective of this community service activity is to strengthen the capacity of managers to develop work programs and enhance the Learning Studio curriculum with support from a computer-based learning monitoring system. The method involves discussions and training as the basis for developing a system designed to support an appropriate monitoring model, with a user-centered design approach. The outcome of this activity is a prototype monitoring model using mobile devices, enabling instructors at the Guidance Studios and the Local Employment Information System (SIKL) to monitor ongoing learning processes.

Keywords: prototype, learning monitoring system, user-centered design, guidance studios, Indonesian schools in Kuala Lumpur

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INTRODUCTION

Education is one of the public services guaranteed by the government for every Indonesian citizen according to the 1945 Constitution of the Republic of Indonesia Article 28C. This article asserts the right of every individual to develop themselves through the fulfillment of their basic needs, including the right to education, benefiting from knowledge, technology, arts, and culture to improve the quality of life and the welfare of humanity.

Indonesian migrant workers often cannot access formal education programs in their destination countries (Suryani, 2021). Migrant children, as part of this nation, have the same right to education. Their potential is equal to that of other children in achieving their aspirations. Therefore, the education of migrant children is a shared responsibility of the government, society, and teachers. The UNESCO Education Council (2015) states that non-formal education must include several key aspects, including lifelong learning, equality in education, skills and competencies development, social welfare improvement, and active community involvement.

Non-Formal Education Services (NFES) provided by the Embassy of the Republic of Indonesia (KBRI) in Kuala Lumpur are intended for Indonesian citizens who have not undergone formal education or do not have certificates for elementary, junior high, and senior high school levels. Under the auspices of the Indonesian School Kuala Lumpur (SIKL), there are 17 guidance centers managed. Among them, four SIKL guidance centers collaborate with UAD in International Community Service (KKN) activities.

Non-Formal Education at the Guidance Centers does not impose specific requirements for prospective participants wishing to attend classes. They only need to show proof of Indonesian nationality, such as diplomas, identity cards, or other identification confirming their citizenship status as Indonesian nationals. The NFES Guidance Centers serve as a venue for acquiring knowledge, developing skills, enhancing potential, and strengthening religious aspects for migrant children who have difficulty accessing formal education due to distance constraints and the limited capacity of formal schools (SIKL).

Non-Formal Education programs often emphasize practical aspects such as basic literacy (reading, writing, arithmetic), as well as skill training tailored to local industry needs. The NFES curriculum is designed based on students' needs and interests, making the analysis of student needs (BAN PAUD/PNF, 2022) crucial. Some challenges faced by

the Guidance Centers include Firstly, although there are already Non-Formal Education and Islamic Education curricula, teaching depends on inconsistent volunteers. These volunteers consist of Indonesian students in Malaysia who lack educational background or teaching experience, as well as community service program students from various universities in Indonesia who assist in the teaching process at SIKL Guidance Centers. Secondly, there are constraints on teaching methods and policies related to the teaching and learning process at the centers, which the volunteers have not mastered, so some of them can only convey the material they understand. Thirdly, the limitations of learning media also hinder the learning process, even though the majority of students have understanding and access to internet technology.

PROBLEM

Issues faced by partners, namely SIKL, include several aspects that need attention. Firstly, although there are Non-Formal Education and Islamic Education curricula for learning centers, high dependence on volunteers results in the delivery of materials not being in line with the intended stages. Secondly, the limited learning resources at the Guidance Centers result in volunteers not having sufficient mastery of the material and teaching methods, as well as specific policies related to the teaching and learning process at the centers. Thirdly, the lack of management and documentation at the Guidance Centers inhibits the management's ability to monitor and evaluate the learning outcomes delivered by volunteers.

METHOD

During the Community Service Program (PkM) implementation, to address specific issues faced by partners, two methods are used: discussion and training. The discussion method is used to explore information, identify alternative problem-solving, and develop ideas and concepts. The goal is to plan the application of ideas by dissecting the root of problems related to the Guidance Centers' environmental conditions. Follow-up to this problem formulation involves PkM implementers in conducting training involving all teachers at the Guidance Centers under the coordination of the Indonesian School Kuala Lumpur (SIKL).

The implementation of community service activities on learning at the Guidance Centers involves three stages: preparation, implementation, and evaluation. Preparation is done by collecting data through interview techniques conducted through visits to the

Guidance Centers' locations before the training agenda, both online and offline. Training implementation includes material presentation through lectures and practical sessions. The material is delivered in two schemes: online for teachers who are constrained by distance and time, and offline for teachers who can attend training sessions in person.

The use of information systems in managing learning centers has great importance. This allows learning center managers to manage student data, teachers, and activity schedules more efficiently and effectively (Rachman, 2020). Information systems also facilitate managers in making accurate and appropriate decisions. In the long run, the use of information systems has the potential to improve the quality of education and support better growth for elementary school students.

Furthermore, the use of information systems in managing learning centers also has positive impacts. This allows managers to monitor the performance of teachers and students more easily (Luthfiyah & Prastowo, 2017). Information systems also assist in making appropriate decisions (Sari & Wibowo, 2018), allowing managers to be more effective in managing existing resources and improving the quality of education (Istiqomah & Handayani, 2016).

The process of developing a prototype learning monitoring system in the User Centered Design (UCD) approach through a series of stages focusing on user needs (Case, 2013), namely teachers, instructors, volunteers, and SIKL. The stages begin with a deep understanding of users and their contexts obtained from previous stages. It is followed by the initial prototype design considering user input. Subsequently, feedback is collected from users through prototype testing to detect problems and rectify them. This iteration is expected to contribute to the development of a prototype that is closer to the actual user needs. This process is designed to ensure that the resulting solution meets user needs and preferences and provides an optimal user experience (Lanter & Essinger, 2017).

RESULT AND DISCUSSION

Community engagement activities are carried out through a series of discussions and training sessions four times. On August 1, 2023, the activity begins with a Zoom meeting discussion with the manager of the Local Employment Information System (SIKL), Shohehuddin. This discussion aims to delve into the issues at the Guidance Studio. The results reveal several significant problems, including an imbalance between the number of students and teachers. It is estimated that there are around 1,700 students while the teaching staff is limited. The existing teaching staff consists of volunteers and students

conducting Community Service Learning (KKN) there. This imbalance impacts the learning process at the Guidance Studio.

On August 27, 2023, the activity continues with a discussion with the managers of the Guidance Studio to further explore the previously identified issues. Additionally, on September 23, a visit to the Guidance Studio (SB) and the Indonesian School of Kuala Lumpur (SIKL) is conducted to gather further information regarding the conditions and needs in the field. Subsequently, on September 24, a training session is conducted at SIKL as an initial step in addressing the identified issues, with the hope of improving the quality of learning at the Guidance Studio.
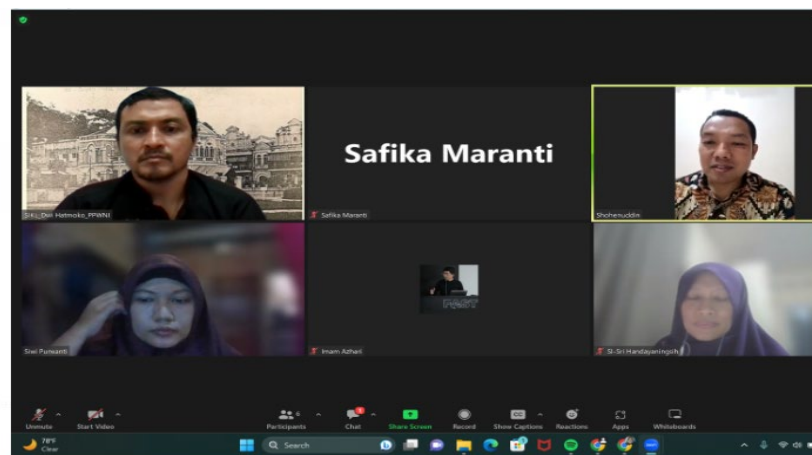

Fig 1. Discussion with SIKL Managers

The second activity is held on Sunday, August 27, 2023, via a Zoom meeting platform. This meeting involves the community engagement team inviting the Coordinator of the Guidance Studio Managers, Isa Suhada. The discussion results depict several issues at the Guidance Studio, including teachers' difficulty in detailing the material elaboration from semester to weekly learning. To address this, training focusing on how to divide the material in more detail is needed. Additionally, issues related to unengaging teaching methods resulting in monotonous learning are identified. The solution to this problem is through training in more engaging and enjoyable teaching methods for students.
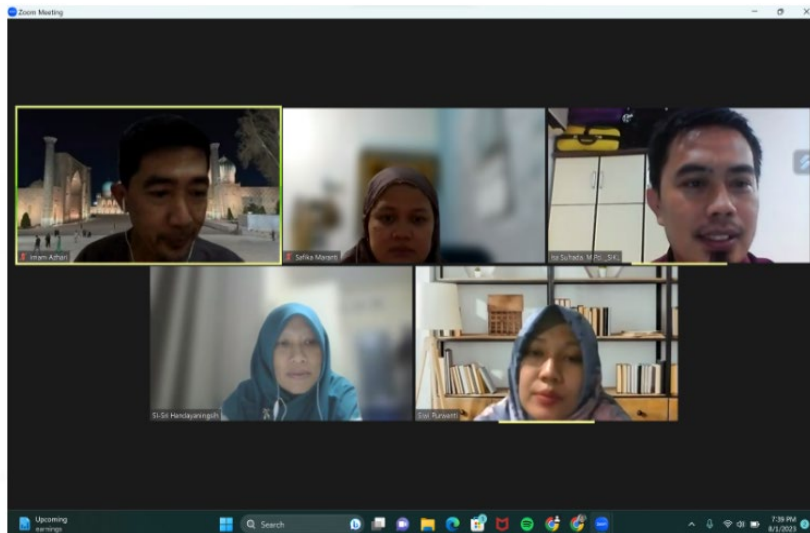
Fig 2. Discussion with SB Managers

The third activity is a field visit to SIKL and SB on Friday, September 23, 2023. The visited Guidance Studios are Sentul Guidance Studio, Sungai Mulia 5 Gombak KL Guidance Studio, and PPWNI Klang. The results of the visit to SIKL involve coordination and preparation of training activities. Through visits to the three Guidance Studios, the team can directly observe learning, interact with teachers and students. Learning there still employs lecture methods and does not use enjoyable methods. Therefore, the solution to this problem is through training conducted in the fourth activity.

Fig 3. Visit to SB Sentul

The fourth activity is carried out on Saturday, September 24, 2023, consisting of several stages of training. The first training discusses Student Characteristics Introduction and Enjoyable Learning Methods. The second training is about strategies for dividing learning materials from the Semester into weekly plans. This is followed by the presentation of examples of science learning material videos for Elementary School (SD) while participants also practice using enjoyable teaching methods, such as "make a match". The third material focuses on how to create Quizizz for teachers, where Quizizz is one of the interesting learning evaluation media. Next, the next step is the system design process based on information collected from previous stages. In the system design process, three main actors are identified: Curriculum Coordinator (SIKL), Guidance Studio Managers (SB), and SB Teachers. Each actor has their respective roles, including: (1) Curriculum Coordinator is responsible for managing learning materials according to class, inputting learning material designs per class, and periodically monitoring learning outcomes at SB. (2) SB Managers are tasked with managing SB management, managing class, student, and teacher data. (3) SB Teachers are responsible for entering learning data for each meeting, including activity time, number of attending students, and material delivered according to the lesson plan. The next step is designing the basic framework (wireframe) that determines the structure and layout of the main elements of the application. This involves considering interface architecture and navigation to ensure an intuitive user experience. The main focus of this stage is on simplifying and efficiency in designing user interface elements. The next stage is designing more detailed interactive prototypes using high-fidelity prototyping tools. At this stage, visual elements such as color, typography, and images are included to provide a more accurate representation of the final application interface. The overall prototype includes interface navigation and comprehensive basic application functions.

CONCLUSION

Based on the results of the conducted community engagement, it can be concluded that the Community Service Learning (PkM) activities for 4 days went smoothly. The activities began with discussions to identify problems, followed by visits to the Guidance Studio (SB) and Local Employment Information System (SIKL), and ended with training on student characteristics, methods for dividing learning materials, and practice using the Quiziz platform. There was a significant improvement in the knowledge and skills of the participants, measured before and after the training. The results of this activity serve as the

basis for designing a learning monitoring system model in SB in the form of a prototype model based on mobile devices. This model can be used by SB teachers and SIKL to monitor ongoing learning processes. Recommendations for the next stage of community engagement activities are to implement the monitoring system using mobile devices. Furthermore, it is important to provide training and mentoring to all SB teachers and teaching staff as well as SIKL personnel so that this system can be optimally utilized.

ACKNOWLEDGEMENTS

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