



**DESIGN AND DEVELOPMENT OF SUPPORTING APPLICATIONS “E-MPKK”
FOR LERANING MEDIA OF MIDWIFE AND ENTERPRENEURSHIP
MANAGAMENT CLINIC PRACTICE**

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ABSTRACT

Learning Center for Midwifery Service Management and Entrepreneurship to manage management reports, proposals, and role plays. The first purpose and benefit of this research is to design and build a prototype software application "E-MPKK" as a Learning Media for Clinical Practice Management of Midwifery and Entrepreneurship Services for Midwifery Department Students, FKUB so that the learning process is more effective and efficient, including easy access to reporting, monitoring student assignments, and the effectiveness of the duration of clinical guidance between lecturers and students. With this software application, students are expected to be able to analyze the correct information with the right method and time. The right time is meant to shorten the time to work on data collection, problem analysis, and making strategic plans. the process of storing the resulting soft file. assessment, analysis results, and planning to be better, structured, and measurable. With this software application students can analyze the correct information with the right method and time. storage of soft files of assessment results, analysis results, and planning to be better, structured, and measurable. by assessing the effectiveness and efficiency of working on reports with software applications. With this software application, it is expected that Midwifery Service Management reporting will be more effective; and reporting time is shorter, storage is also better and safer and reduces paper usage With this software application students can analyze the correct information with the right method and time. storage of soft files of assessment results, analysis results, and planning to be better, structured, and measurable. by assessing the effectiveness and efficiency of working on reports with software applications. With this software application, it is expected that Midwifery Service Management reporting will be more effective; and reporting time is shorter, storage is also better and safer and reduces paper usage With this software application students can analyze the correct information with the right method and time. storage of soft files of assessment results, analysis results, and planning to be better, structured, and measurable. by assessing the effectiveness and efficiency of working on reports with software applications. With this software application, it is expected that Midwifery Service Management reporting will be more effective; and reporting time is shorter, storage is also better and safer and reduces paper usage With this software application, it is expected that Midwifery Service Management reporting will be more effective; and reporting time is shorter, storage is also better and safer and reduces paper usage

Keywords: learning media; midwifery; service management

First Received 15 December 2021	Revised 18 January 2021	Accepted 20 January 2022
Final Proof Received 14 February 2022		Published 28 February 2022

How to cite (in APA style)

Sariati, Y., Sari, N., Rasyid, H., & Ediyono, S. (2022). Design and Development of Supporting Applications “E-MPKK” For Leraning Media of Midwife and Enterpreneurship Management Clinic Practice. Indonesian Journal of Global Health Research, 4(1), 167-176. <https://doi.org/10.37287/ijghr.v4i1.887>.

INTRODUCTION

Lessons Learned The practice of midwifery service management in universities providing professional education for Midwives should produce graduates who are ready to become managers. As one of the providers of Midwifery Professional Education, the Faculty of Medicine, Universitas Brawijaya strives to develop clinical learning tools that are able to combine understanding and transformation of experience. (Kolb, Powerful Learning Experiences, 2002) (Kolb 1984: 41). The clinical learning process for Professional Midwifery Service Management and Care based on Health facilities that has been applied at FKUB uses an Experiential Learning approach. This concept is defined as a learning process in which knowledge is created from the combination of gaining experience and transforming that experience.

The midwifery service management station begins with an effort to create a profile of midwifery graduates as "Decision Maker" and "Manager" and as well as study material to create status (better known as Courses in PDPT). Management practice learning study materials include (1) issues of midwifery services for both individuals and communities, taking into account cultural values and diversity; (2) study of lessons learned on the history of midwifery services and the situation of women in multiple periods in Indonesia (including cultural reconstruction and strengthening of local cultural identities); (3) analysis of the impact of professional practices that can reduce and undermine the cultural identity or well-being of individuals or communities; (4) current issues related to midwifery services to individuals and communities; (5) Global Policy on Midwifery Services; (6) leadership in clinical settings; (7) economic, environmental, political and social influences on policies related to maternity, service planning and service models; (8) professional issues in midwifery policy; (9) regulatory and legislative framework; (10) Maintaining competence to develop professional habits; and (11) responsibility and accountability.

The clinical learning process of midwifery service management and entrepreneurship requires specific and complex cognitive abilities and assessment skills (data collection). The management stage is a clinical learning stage which students find difficult to understand and implement, especially during the data input and processing process. This may be related to the resources available at the health facility where the station is located. To simplify the process of input and data processing for students and lecturers, software that can be used on devices is needed so that it is more practical because it can be done anywhere and anytime. The research method used in the development of android-based learning media. With this practical learning process,

Based on this explanation, the author tries to conduct a study on efforts to integrate PBM with information technology that involves seven main student skills, namely, problem solving, logical thinking, critical thinking, computerization, structured thinking, independent learning, and career development known as experimental computational. thinking (Indra, 2016). Computational thinking is an approach that is believed to be one of the solutions in responding to future challenges, more carefully and measurably. Teaching computational thinking is not to produce programmers massively, but to introduce students to be able to work smarter, be aware of technology, and optimize the use of language, symbolic and concrete thinking through application-based learning media.

The purpose and benefit of this research is to design and build a Prototype of Software Application "E-MPKK" as a Learning Media for Clinical Practice Management of Midwifery and Entrepreneurship Services for Midwifery Department Students, FKUB so that the

learning process is more effective and efficient, including easy access to reporting, monitoring of student assignments. , and the effectiveness of the length of clinical guidance between lecturers and students.

METHOD

The design of this research is based on Research and Development (R&D) which is simply defined as a research method that is intentionally, systematically, aimed / directed at finding, formulating, improving, developing, producing, testing the effectiveness of products, models, methods / strategies / methods. , services, certain procedures that are superior, new, effective, efficient, productive and meaningful. Research data collection is done through: data forms, interviews and observations. Analysis Techniques The research approach was carried out through a qualitative research approach. The research was conducted by documenting the learning process of midwifery management and entrepreneurship computerized through the E-MPKK application software. Prior to conducting research,

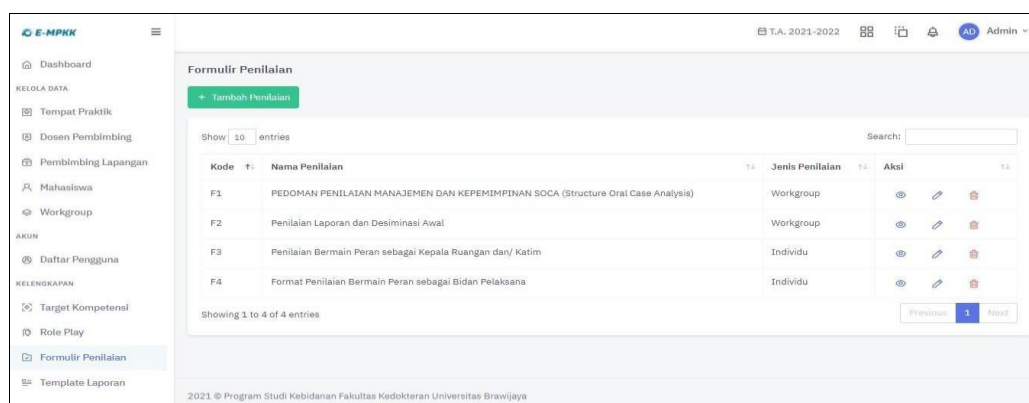
The population of Midwifery Profession students for the 2021/2022 academic year is 64 students. There are 13 types of skills that must be achieved by students during the learning process. The number of skill targets that must be achieved is 32 skill lists. Sample selection was done by purposive sampling, by selecting 1 case per group according to placement. The large number of samples was obtained from the product of the number of students with the available tracing documents, namely 32 x 6 groups = 192 paper-based documents and digital documents with applications. The process of making the application along with the source code is carried out in collaboration with third parties. Data collection is obtained by measuring the length of time students work on one of the documentation manually (paper based) and using a web based application.

RESULTS

DISPLAY FOR SUPER ADMIN

E-MPKK is an Electronic Media for Clinical Learning at the Midwifery and Entrepreneurship Service Management Station to manage management reports, proposals, and role plays. Here the Super Admin can manage all data on the E-MPKK system. E-MPKK provides services for Super Admins including:

1. Managing Implementation Period
2. Managing Practice Place Data
3. Managing Advisory Lecturer Data
4. Managing Land Advisory Data
5. Managing Student Data
6. Managing Workgroup Data
7. Managing User Accounts
8. Managing Competency Targets
9. Managing Role Play Data
10. Managing Assessment Forms
11. Managing Report Templates



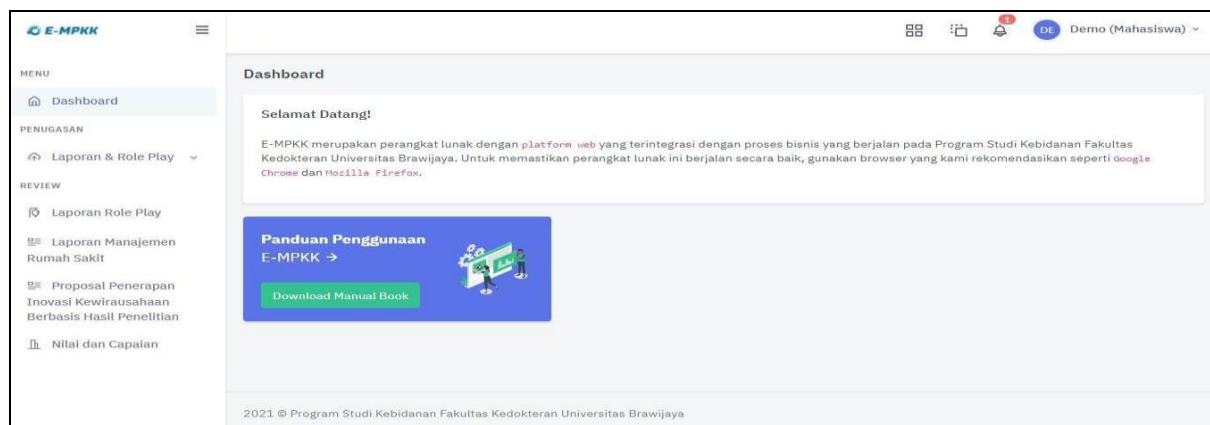
Login to E-MPKK

To access the E-MPKK service, it is done by you <http://e-mpkk.com> through web browser (Chrome or Firefox) as the following image shows. Then enter your E-Mail and Password in the form provided, then press the login button.

DISPLAY FOR STUDENTS

E-MPKK is an Electronic Media for Clinical Learning at the Midwifery and Entrepreneurship Service Management Station to manage management reports, proposals, and role plays. Here, students upload and correct reports if there are revisions in accordance with the assignments and schedules that have been determined through the E-MPKK. E-MPKK provides services for students including:

1. Role Play Report
2. Management Report
3. Proposal Report



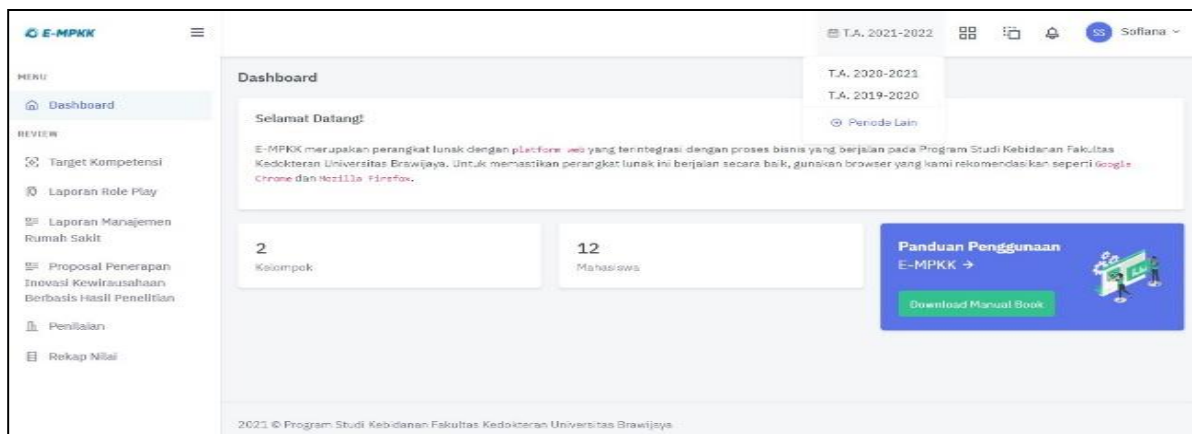
DISPLAY FOR LECTURERS AND LAND SUPERVISORS

E-MPKK is an Electronic Media for Clinical Learning at the Midwifery and Entrepreneurship Service Management Station to manage management reports, proposals, and role plays. Here the Advisory Lecturer reviews and provides suggestions for improving reports through E-MPKK.

E-MPKK provides services for Advisory Lecturers including:

1. Role Play Report
2. Management Report
3. Proposal
4. Competency Target
5. Evaluation

To access the E-MPKK service, it is done by opening the <http://e-mpkk.com> via a web browser (Chrome or Firefox) as shown in the following image. Then enter your E-Mail and Password in the form provided, then press the login button



The results of testing respondents from students on the quality of the application are shown in Table II.

Table 2.
Results of questionnaire testing for student respondents (n=64)

Question	Value Weight				
	5	4	3	2	1
1	54	7	3	0	0
2	33	30	1	0	0
3	47	14	3	0	0
4	48	16	0	0	0
5	51	11	2	0	0
6	48	12	4	0	0

The average results of all questions on students for application quality assessment, are shown in Table 3.

Table 3.
The average percentage of all questions

Strongly agree	60.52%
Agree	34.67%
Enough	4.81%
Disagree	0%
Do not agree	0%

The results of testing respondents from lecturers on the quality of the application are shown in Table IV.

Table 4.
Results of questionnaire testing for lecturer respondents (n=44)

Question	Value Weight		
	5	4	3
1	29	13	2
2	29	12	3
3	29	15	0
4	15	27	2
5	42	2	0
6	29	14	1
7	29	14	1
8	15	27	2

Table 5.
The average percentage of all questions for lecturer respondents

Strongly agree	72.12%
Agree	23.72%
Enough	4.16%
Disagree	0%
Do not agree	0%

The average results of all questions on lecturers for application quality assessment are shown in Table V.

Table 6. Average results of all questions on students for application quality assessment

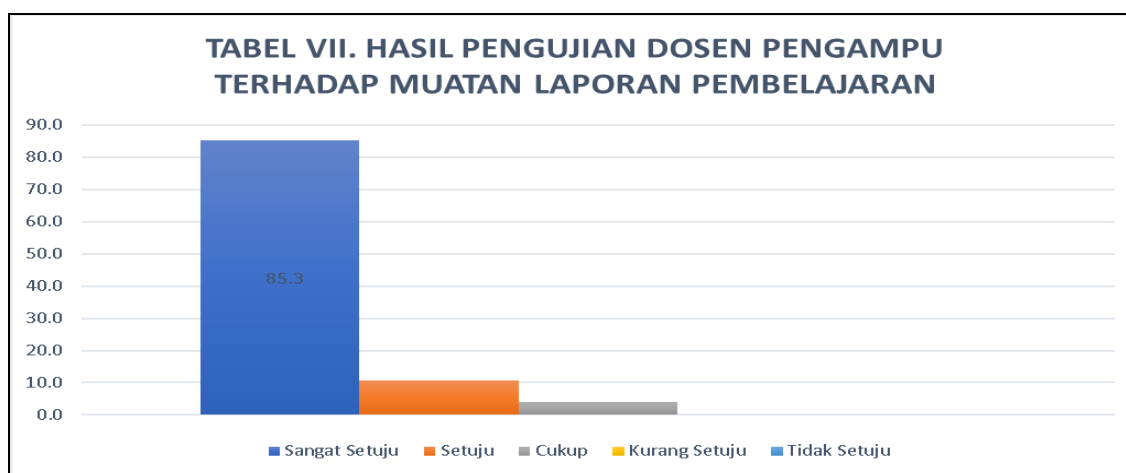
Question Items	Percentage (%)				
	Strongly agree	Agree	Enough	Disagree	Do not agree
1	70	25	5	0	0
2	77	16	7	0	0
3	73	27	0	0	0
4	89	11	0	0	0
5	82	9	9	0	0
6	75	18	7	0	0
7	84	14	2	0	0
8	80	18	2	0	0

Table 6 describes the results of student MOS assessors on the quality of application support for MK Management and Entrepreneurship reporting. From this table, it can be seen that most students agree with the use of e-MPKK as a means of reporting this course. Likewise with lecturers, the following Table 7 describes the support of lecturers and land supervisors for the use of E-MPKK as a means of reporting on MK Management and entrepreneurship learning.

Table 7. Average results of all questions on lecturers for application quality assessment

Question Items	Strongly agree	Agree	Enough
1	88	7	5
2	86	7	7
3	88	12	0
4	97	3	0
5	82	9	9
6	75	18	7
7	84	14	2
8	88	10	2

In table VI, the lecturers with the total percentage in the assessment application strongly agree at 97%.



DISCUSSION

The midwifery and entrepreneurship management course report system for Midwife Profession students has been implemented since 2010 using a paper-based model report. The number of process documents that need to be controlled makes the variation between reports per student very high. The drawback of paper-based reports is the large number of professional student reports that must be submitted for validation to lecturers as a form of achieving competency targets.

The competency targets that are collected every day will continue to grow so they need a place to store reports, and if needed at any time it will take a long time to find them. And writing paper-based reports requires a lot of paper, describing situations that are not environmentally friendly (Go Green) and easily damaged by weather (water, humidity, and so on). The Covid-19 pandemic condition has also led to changes in learning methods in practice vehicles, with the need to minimize contact to prevent nosocomial infections.

The information system between lecturers, students and land supervisors is digitally designed to increase the effectiveness of Midwifery Service Management as a form of

reporting student competency achievements. An information system is a collection of data in the form of hardware, software, communication networks and data resources by collecting, transforming, and disseminating information within an organization. In addition, the notion of an information system is a group of elements that are interconnected or interact to form a single unit (Indrajani, 2014). Thus, this report application was developed to streamline the learning process and prevent nosocomial infections.

CONCLUSION

This application is made according to the 7-step development procedure from Borg and Gall: needs analysis, instructional media planning, initial product design, product testing phase I, operational product revision, product testing phase II, and product prototypes. This application is arranged in 4 different views, according to the existing users and functions, namely for: students, midwives/land preceptors, lecturers and coordinators. The application prototype can be opened at the link e_mppkk.ub.ac.id. Software-based Midwifery Service Management Reporting is more effective than paper-based reports. Learning Management of Midwifery Services based on software applications is more efficient, judging by the time of practice test, writing clarity,

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