

Upgrading Skills of Health Workers in the Digital Era: The Experience of Universitas Terbuka-Indonesia

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Abstract. This article describes the experience of the Open University in developing a distance education program for a diploma (D-III) in Medical Records and Health Information Management (MRHIM = Rekam Medik dan Informasi Kesehatan = RMIK) A new rule in Indonesia stated that health personnel must be upgraded from D1 to D3 according to their competence levels. Since the potential participants in this program are generally already working, with a very large number of them requiring additional vocational training, then it was decided to select the mode of distance education. The development of information and communication technology has proven useful to higher education institutions in facilitating the distance learning process. The challenge faced by distance education providers is to design and develop distance vocational higher education programs, especially in the curriculum, learning process, and education management. Indonesia's Open University (Universitas Terbuka (UT)) as a distance education provider institution since 1985, has implemented a distance learning system and provides an enormous opportunity for prospective students who want to learn while working without any restrictions on age, years of diploma, study period, registration time, or frequency of taking the exam. The only stipulation is that every UT student must have completed senior secondary education (SMA or equivalent) (Universitas Terbuka, 2015). This paper attempts to present an overview of the process of developing distance vocational higher education to answer the needs of the number of qualified medical records personnel in Indonesia, based on the rules stipulated by the Directorate General of the Ministry of Research and Technology (Kemenristekdikti). Development activities begin with needs analysis, deciding the learning outcomes or the competencies and curriculum development, learning or instructional infrastructures, partner identification for tutorials, practical work, clinical practice and fieldwork practice, and efforts to collaborate with various parties to facilitate the implementation of the learning process.

Keywords: *distance learning, online learning, vocational education, skills upgrading*

1 Introduction

Indonesia's National Education System was established to develop the ability, improve the quality of life and human dignity of Indonesian citizens. In Article 15 of the National Education System Law No. 20 of 2003, the National Education System recognizes vocational education as one type of higher education program that prepares students to be skilled practitioners who will enter the workforce in accordance with their areas of expertise.

The demands and needs of the community for health services need to be addressed by the improvement of the professionalism of health workers, as mandated by Law No.36 of 2009 on health workers. Health workers, as a group, are defined as all people who work professionally in the healthcare field. Given the large number of health workers who need to improve their qualifications without disrupting health services, an appropriate education delivery system to be implemented is the distance education system. The distance education system is an education system whereby learners are physically separated from educators. In this digital era, learning is

facilitated using information and communication technology and various media as learning resources. The principle of organizing distance education allows learners to follow education without having to stop working, and the implementation of the learning process still pays attention to the rules and norms of the higher education process.

The Diploma III Program of Medical Records and Health Information Management (MRHIM) is a program that prepares students to be skilled in the management of health information. The curriculum of the MRHIM program refers to the standard of competence as stipulated in the professional standard in Permenkes. 377 Year 2007. Medical records become an important aspect of supporting the quality of health services. Implementation of a distance education system in offering the program can improve institutional capacity in upgrading the skills of the health workers without having to disrupt the health services, since the participants can keep on working full-time while studying part-time.

Literature Review

The component of distance education, according to Simonson et al. (2006) in BPPSDMK (2013) consists of four components. The first component is an organizing institution; this institution could be a conventional educational institution such as a university, school, academy, or other that offers distance learning programs besides regular face-to-face programs, or an organizing institution that specializes in distance learning programs, such as the Malaysian Open University in Malaysia, the Open University in the UK, and Universitas Terbuka (UT) in Indonesia. The second component is the distance, or separation in time and place, between the study participants and teachers. That is, the lessons are delivered by the teacher to the learners, independent of time and place, so that learning can be more flexible and adaptive to the conditions, the time, and the learning speed of the learners. The third component is the use of interactive information and telecommunications systems, facilitating lecturer communication with learners. The occurrence of long-distance communication is a consequence of the separation between learners and teachers. Therefore, the existence of an interactive telecommunications system is very important because the key to the learning process is the interaction between students and teachers. The fourth component is the sharing of data in various forms—text, pictures, sounds and video/animation—as learning objects that enable the learning experiences to occur.

The Agency for Human Resource Development and Empowerment of the Indonesian Ministry of Health in collaboration with the Australia–Indonesia Partnership for Health Systems Strengthening–Australian AID (AIPHSS-AUSAID) issued guidelines for the implementation of distance education for health education in 2013. In cooperation with the Health Polytechnic Institute of East Kalimantan in the city of Samarinda, the Ministry of Health facilitated a trial of distance education for health workers in the fields of Midwifery and Nursing, by establishing the regional office unit at a distance of 1500 km, in Nunukan district. This program is in response to the regulation of the Minister of Health No. 1464/Menkes/Per/X/2010, concerning the permit of Implementation of Midwife Practice and the Regulation of the Minister of Health No. 17 of 2013 on Permission and Implementation of Nurse Practices, stating that the midwife or nurse who runs an independent practice in the health services facility needs to have the minimum education of Diploma III. The program in East Kalimantan is to upgrade the skills of the health workers who have D-I or a lower-level diploma who work in public or private health institutions but find they cannot improve their skills to a D-III level due to constraints of time, geographical conditions, and age factors. In 2013, there were still more than 146,542 health workers working in health care facilities with only secondary education and Diploma I and located in remote areas or islands.

The distance education program developed by this polytechnic consists of two study programs in Midwifery and Nursing. Implementation includes the creation of learning materials in the forms of print as well as multimedia such as video, props and phantom/simulators, presentation materials ready to be uploaded, textbook/ebook and checklists/SOP for practical. The mechanism of registering is through applying recognition of prior learning (RPL) since the objective of the distance education program is to improve the quality of health services in the region. The mechanism of admission of students is through the RPL process, meaning that those allowed to register are health workers who have a D-I or a lower-level diploma, but who have worked in health agencies for many years. The learning and teaching process consists of 50% (8 weeks) of self-learning, a mid-semester test at the place of work, and a 2-week face-to-face tutorial on critical/important competencies, and final exams at the regional office.

The high demand for the number of medical recorders, based on the various classifications of hospitals in Indonesia, has meant that the provisions on medical records have been widely embodied in the Ministry of Health regulations. The Ministry of Health Regulation No. 56 of 2014 stated that the medical records service is one of the clinical support services that must exist under the terms of hospital licensing. Meanwhile, Ministry of Health Regulation No. 55 of 2013 explained that the minimum educational qualification for medical records personnel is Diploma III (D-III). The functional position of the medical recorder in the health service is regulated in Permenpan number 30 of 2013. The functional position of the medical recorder is differentiated into a skilled

medical recorder (minimum education is D-III in Medical Records) and an expert medical recorder (minimum education is D-IV Medical Records).

The number of medical records workers with minimum educational qualifications still shows a shortage, both in hospital and in community Health Centers/Puskesmas. This condition is explained in detail by the statement of the Chairman of the Central Leadership Association of Professional Medical Recorders and Health Information Indonesia (Pormiki), noting that Indonesia needs more than 10,000 medical records workers for hospitals and currently there are only about 4,000 recording personnel with the D-III Medical Record qualification (Total graduates of the programs since 1994). On average, hospitals still employ graduates from senior high school or vocational high school trained in computer data processing. There is still a considerable gap between the level of need for medical records personnel and the availability of adequately qualified medical records personnel in Indonesia (Agustina, 2016, Imanti & Setyowati, 2015; Reksadiana, Markus, & Citra Budi, 2014; Yuliani & Habibah, 2013; Nuryati, Pramono, & Wijayanti, 2012).

Based on these conditions, the Ministry of Health's Human Resources Development and Empowerment Agency works closely with the Ministry of Research, Technology and Higher Education, and UT develops distance education for eight study programs: Nursing, Midwifery, Pharmacy, Dental Nursing, Gizi and Nutrition, Environmental Health, Medical Records and Health Information Management, and Medical Laboratory Techniques. UT participates in the provision of competent medical records personnel through the implementation of D-III MRHIM (RMIK) through a distance education system. The study program is expected to meet the needs of medical records personnel in Indonesia. UT can provide a great opportunity for prospective students who want to continue their studies while working.

2. Development of Distance Education System for MRIHM Program

The development of the vocational distance education program in the D-III study program of MRHIM is executed by the Plan, Do, Check, Act (PDCA) method (Utami, Kurniawati, Dwisatyadini, Suhardi, & Hartari, 2017). The Plan and Do parts begin by conducting a literature review and needs analysis through online surveys and interviews with a medical recorder with the qualification of SMA/SMK and Diploma (D1/D2/ D3), and the director of hospitals/head of medical records unit, both in government and in private hospitals. The results of the evaluation (Check) emerged from the analysis of needs and literature studies and revealed that as many as 57% of the unit leaders want the level of education of D-III and D-IV/S1/Bachelor's Degree. The reasons are related to the requirement for D-III level of the medical records worker, and some stated that they want to improve human resource knowledge and skills, and thought that the D-III level of education could meet the accreditation standards, and implementation of the standardized health service system.

Of the medical records workers surveyed, 89% stated that they have an interest in continuing education in the health information management study program, with the most-expressed reasons being to broaden insight (76%), support work-related activities (65%), increase income (47%), obtain a bachelor's degree (41%), and promotion (6%). Furthermore, 74% of the medical records staff confirmed that they had a chance to continue their education, since the hospital in which they work will give them permission. The most common reasons are that, by participating in the distance education program, they can still split the time between work and studying (21%), and contribute to improving the quality of hospital services (14%) (Utami, Kurniawati, Dwisatyadini, Suhardi, & Hartari, 2017).

From the data obtained from the PDCA method, an action plan was developed, that is, a proposal for the establishment of the RMIK – D-III study program at UT as a follow-up stage (Act), that is in line with the guidelines for the establishing a distance education program at the vocational higher education level, based on relevant regulation of Kemristekdikti to ensure the accountability, transparency, efficiency and effectiveness of the program, and to prevent unhealthy competition with similar programs nearby. The learning system implemented at UT makes it easy for students to study independently by managing their own time, place, and learning resources.

The follow-up steps (Act) continued with the planning of recruiting the lecturers required. Based on the planning and implementation phase (Do), it is revealed that FMIPA UT has a number of lecturers for the RMIK study program with competencies in statistics, computer science, and health. The availability of the Open University Distance Learning regional offices in 38 provinces/cities in Indonesia provides wider opportunities for all healthcare professionals in the field of medical records who wish to improve their qualifications. The next step of planning and implementation after the literature study and requirement analysis is the compilation of learning achievement based on the accepted core curriculum of the D-III RMIK study program. The curriculum is developed to ensure the achievement of the accepted competencies of the study program. The curriculum also become the foundation to develop the learning materials, process, and evaluation.

The next planning and implementation process (Do) is identifying partner universities and providers of public or private health services for tutorials, practicums, clinical practices, fieldwork practices and collaboration. This process begins with tutorial management starting from recruitment and tutorial training for online and face-to-face tutorials. Tutors come from the Health Department, or PTN/PTS located at UT's regional offices. The tutor recruitment process follows the existing process in UT.

The next stage is implementation (Act) of the program through the self-learning, online and face-to-face tutorials for practice or practical. The learning evaluation can be via paper and pencil or performance evaluation. All of the evaluations are conducted face to face in the classrooms, or in the laboratories or workplaces of the partner institutions. Evaluations are also conducted on the processes and the overall program, to identify the needs for any improvement of academic content and the management of the program.

3. Conclusion

This article describes stages of the process of the development of a vocational distance education program of D-III MRHIM, that begins by conducting a literature study and needs analysis through online surveys and interviews with medical records workers with qualifications of SMA/SMK and Diploma (D-I/D-II/D-III), as well as directors of hospitals/heads of medical record units, both in government and in private hospitals. The next process is to identify partner universities and public or private health service providers for tutorials, practicums, clinical practice and fieldwork practice, and collaborate with various parties, and then, establishing the curriculum, courses, learning materials, and exam materials. Last but not least is the establishment of continuous program improvement through program and process evaluation.

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