Main factors in E-Learning for the Equivalency Education Program (E-LEEP)

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Abstract. There is a tremendous learning gap between formal education and non-formal education. E-Learning can facilitate non-formal education learners in improving the learning process. In this study, we present the main factors behind the E-learning for the Equivalency Education Program (E-LEEP) initiative in Indonesia. There are four main factors proposed, namely: standardization, learning materials, learning process, and learners’ characteristics. Each factor supports each other to achieve the learning process of E-LEEP in Indonesia. Although not yet proven, the E-learning should be developed followed the main factors for the non-formal education. This is because those factors can improve the quality of E-Learning for the Equivalency Education Program.

1. Introduction
In some countries, e-Learning has been implemented to support non-formal education. The e-Learning has become an international choice to improve the quality, access and equity between formal and non-formal education. A large amount of literature has addressed various e-Learning strategies to close the gap.

The study in Zambia by Richard and Foster states that distance education using e-Learning is a way of educating learners who are not getting formal education, and as a means of supporting and facilitating conventional education in developing countries \cite{1}. E-Learning is also being developed in the project: The Distance Education Project for Rural Schools (DEPRS), to improve the quality of education in rural areas of China, especially in the poorer western provinces \cite{2}. Then study in \cite{3}, proposes a Model to provide e-learning services to remote / rural areas of China in order to facilitate non-formal education. The Philippines develops eSkwela as an e-learning learning center for youth and adult outside school \cite{4, 5}.

Meanwhile, Indonesia in 2016 has introduced e-Learning for equivalency education (see Figure 1) (https://kesetaraan.kemdikbud.go.id). E-Learning is built to facilitate learners to learn independently and to give broader access to learning. This is to accommodate the learning strategy of equivalency education programs that emphasize on independent learning 50\%, face to face at least 20\%, and tutorials at least 30\% \cite{6}. This learning approach is used as an alternative for students who are relatively difficult to meet directly with the tutor because 430386 learners and 12369 Community Learning Centre (CLC) at 2015/2016 spread across provinces, districts / cities and sub districts in Indonesia \cite{7}.
Nevertheless, e-learning that has been applied had only change the content of learning into digital. However, many factors can be considered in accordance with the characteristics of e-Learning and equality education environment. With the proper application of e-learning, learners can optimize the learning process, so that they can achieve their educational goals.

This is the reason why, in our previous study [6], we have proposed e-Learning for equivalency education program (E-LEEP) model. The model consists of three main components: Users, programs and monitoring. Each component will support students in to achieve the goal of learning. In this study, main factors of E-LEEP initiatives (performance) are proposed.

2. Literature Review
In developing e-Learning, it is important to discern the success factors. Various important factors in e-learning have been established through research conducted by many researchers. Standardization is one of the important factors in the development of e-Learning [8][9]. The development of qualified e-Learning in an institution requires good standardization [10].

Learning content is also an important factor for the successful implementation of e-Learning. Learning content plays an important role in the performance of e-learning, which in turn affects learners' satisfaction and further their intentions to use e-learning [11]. Learners are very concerned about learning content that will be learned in the use of e-learning [12]. Learners should easily access learning content and get quality contents [13]. Learning content refers to teaching materials and how they are delivered to learners [11].

E-Learning can support and improve the learning process. Therefore, the learning process factor also affects the effectiveness of an e-Learning [14] [15]. The learning process in the context of e-
learning is related to learning activities [15], discussion forums to encourage learners to be actively involved [16] and evaluation of learning outcomes [17].

In addition, various characteristics of learners such as: culture, background, speed of learning, learning style, motivation, and ability, required the implementation of learning in e-Learning. E-Learning should not only be able to transfer teaching materials from teachers to learners, but also facilitate the diversity of learners’ characteristics as one of the influential factors in the e-Learning process. For example, how learners from different cultures can be actively involved in online learning [18]. There is an interrelationship between learning styles and motivation to knowledge skills in the e-Learning process[19]. One of the objectives of addressing the characteristics of learners in e-Learning is to adjust the need for teaching materials to suit their different characteristics.

3. Main Factors E-LEEPS

To determine the main factor of E-Learning for the Equivalency Education Program (E-LEEP), other than literature studies, one should also look at components related to the learning environment of equality. Therefore, the study proposes the main factor E-LEEP is the result of four factors interrelated: Standardization, Learning Content, Learning Process, and, Student Culture. Figure 2, explains the main factors in E-Learning for the Equivalency Education Program.

![Figure 2. Main Factors in E-LEEP](image)

3.1. Standardization Factor

The implementation of e-Learning in education equality does not have a standard so that there is a misperception in its implementation. Therefore, one need to set up an appropriate standard service of the implementation of e-learning. E-LEEP must be organized based on Government Regulation (PP) 19 of the year 2005 on National Education Standards as adjusted in PP 32 of 2013 and PP 13 of the year 2015. Figure 3 describes the standardization component to support E-LEEP.
Content Standard for Package A Program, Package B Program, and Package C Program based on the regulation of national education minister no. 14 2007, covering the minimum material scope and the minimum competency level to achieve minimum graduate competency. The Content Standards for E-LEEP should take into account the educational calendar and curriculum. The curriculum of Package A, Package B, and Package C programs is implemented in a system of levels and degrees that are equivalent to a class system in formal education with their respective competencies. Educational calendar is the signs to organize learning activities that meet the needs of learners.

Process Standard is a national standard of education related to the implementation of learning on equality education. Standard Process Planning of learning process includes syllabus and lesson plan implementation which contains subject identity, competency standard (SK), basic competence (KD), competency achievement indicator, learning objectives, learning materials, time allocation, learning methods, learning activities, assessment of learning outcomes, and learning resources. Therefore, E-LEEP must apply in the process of equivalent equality of Package A Program, Package B Program, and Package C Program contained in the Minister of National Education regulation no. 3 year 2008.

Management Standards in accordance with the Minister of National Education's regulation no. 44 year 2009. Management Standards are the criteria of planning, implementing, and supervising educational activities at the educational, district / city, provincial, or national levels of education in order to achieve the efficiency and effectiveness of equality education. E-LEEP should pay attention to the management of each equality education at the central level undertaken by the Directorate General of Literacy and Equality. The provincial level is implemented by the Learning Activity Development Center (BPKB) or other similar names. The district / city district level is implemented by the Learning Activity Studio (SKB) or other names like that. At the sub-district level, there was an equivalency education supervisory unit (Package A, Package B, and Package C).

Education Assessment Standard refers to the regulation of the Minister of Education and Culture No. 66 year 2013. Assessment of learning outcomes of education equality learners in accordance with the basic and secondary education level is implemented based on applicable national education assessment standards. Therefore E-LEEP must pay attention to the mechanisms, procedures, and learning outcomes assessment instruments of learners nationally.

Successful implementation of equality education learning activities is largely determined by the competence of tutors or non-formal education personnel. Government Regulation No. 19 year 2005, has described the competence or standard of educators. Main task and tutor functions: Develop lesson plans; compile or develop learning materials; teach; and assess learning outcomes. Thus, the Tutor using E-LEEP can upload teaching materials, assignments, quizzes, exams and discussion forums, and participate in video conferences with learners according to schedule.

Figure 3. Standardization factors in E-LEEP
3.2. Learning Content Factor

In general, the content of learning equality education in the form of learning module is used as a learning source. At each ends of discussion, there will be an Exercise Problem to be done alone or in groups. Nevertheless, Learning content E-LEEP must adapt the curriculum structure of Package A, Package B, and Package C programs implemented in a system of levels and degrees equivalent to the class system of formal education based on competence. Table 2 describes E-LEEP content learning based on the structure of the equivalency education curriculum.

Package A program includes: Level 1 with beginner (Awal) competency level equivalent to 3rd grade Elementary School, emphasizing literacy and numeracy skills (language and numeracy skills), so that learners are able to communicate via text in writing and oral, either in the form of letters or numbers. Level 2 with basic (Dasar) competency level equivalent to 6th grade Elementary School, emphasizes the gradual mastery of facts, concepts, and data, so that learners are able to communicate through text in writing and orally using simple natural and or social phenomena ethically, to have the skills basis in meeting the needs of daily living and continuing education to a higher level.

Package B program includes: Level 3 with competency level Proficient 1 (Terampil 1) is equivalent to 8th grade Junior High School, emphasizes the mastery and application of abstract concepts more widely and practicing improving thinking skills and acting logically and ethically, so that learners are able to communicate via text in writing and orally, and solving problems by using wider natural or social phenomena. Level 4 with competency level Proficient 2 (Terampil 2) is equivalent to 9th grade Junior High School, emphasizing the improvement of thinking skills and processing information and applying it to produce simple works that benefit themselves and society, so that learners are able to actively express themselves and communicate their work through text orally and written based on ethically accurate data and information, to meet the demands of simple job skills and to continue education to a higher level.

Package C program includes: Level 5 with competency level Highly Proficient 1 (Mahir 1) equivalent to 10th grade Senior High School, directed to the achievement of the basics of academic competence and apply it to produce the work so that learners are able to communicate the concepts in a more scientific and ethical and prepare for able to work independently and develop a professional personality. Level 6 with competency level Highly Proficient 2 (Mahir 2) is equivalent to 12th grade Senior High School, directed to the achievement of academic ability and functional skills ethically, so that learners can work independently or entrepreneurship, be professional, active and productive participant in community life, and can continue education to a higher level.

Table 1. Learning Contents For E-LEEP

| Equivalency Education | Level | Competency      | Learning Contents                                      |
|-----------------------|-------|-----------------|--------------------------------------------------------|
| Package A Program     | 1     | Beginner        | Text based modul, exercise                            |
|                       | 2     | Basic           | Text based modul and video, exercise                  |
| Package B Program     | 3     | Proficient 1    | Text based modul, animation and video, exercise       |
|                       | 4     | Proficient 2    | Text based modul, animation and video, ppt, exercise  |
| Package C Program     | 5     | Highly Proficient 1 | Text based modul, animation and video, ppt, reference link, exercise |
|                       | 6     | Highly Proficient 2 | Text based modul, animation and video, ppt, reference link, e-book, exercise |

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3.3. Learning Process Factor
The learning process in E-LEEP includes learning activities, discussion forums, and evaluations. Learning activities with e-learning system are conducted in accordance with the subjects held in equivalency education for each program scheduled in the coming semester. The lesson plan should be clear and adhered to. Teaching materials used in the learning process comes from various sources in various forms, formats, and media. Learning resources that have been packaged electronically and available to be accessed by participants anytime and from anywhere.

By utilizing E-LEEP, learners easily establish communication with the Tutor. Communication can be done through discussion forums with the purpose of learning. Discussion forums between learners and tutors can be used to discuss and to ask a lesson. In addition, discussion forums can also be conducted among fellow learners. Discussion forums should be able to attract students into the online learning process by encouraging them to take an active and central role in learning.

Meanwhile, evaluation of the learning process is done for the assessment of learning outcomes of learners. In equivalence education, evaluations carried out upon each subject ends in midterm and at the end of term, which will be graded in report cards. The evaluation features that E-LEEP provides are exercises, quizzes, personal tasks, and group tasks.

3.4. Students Characteristics Factor
The learning process in e-Learning is very complex and many factors influence it, including the characteristics of learners. On the other hand, teaching materials should be flexible, so learners of different characteristics can get the teaching materials that fit the characteristics thereof. E-LEEP should be able to identify differences in the characteristics of learners, so that learning materials are flexibly adjusted to the culture, learning style, motivation, ability and other characteristics.

4. Conclusion
The study has shown that there are four the main driven factors the E-learning for the Equivalency Education Program (E-LEEP) in Indonesia, namely: standardization factor, learning contents, learning process, and learners’ characteristics. The standardization factor consists of five main standards: contents, processes, management, education assessment, and tutor. Learning contents based on the curriculum structure of Package A, Package B, and Package C programs that implemented in E-learning (E-LEEP). The Learning Process factor in E-LEEP includes learning activities, discussion forums, and evaluations. Meanwhile learners characteristic factor is an existence of the characteristics of learners in e-Learning (E-LEEP), such as culture, learning style, motivation, ability and other characteristics. Thus, each factor will dynamically support the learners to achieve the goal learning in E-LEEP. Our future research is analyzes an existence of the main factors in E-LEEP and test it on various courses. Preliminary studies also will be conducted, including analysis and discussion results will be shown in next paper.

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