The Role of Facilitators in a collaborative online learning Environment

Ifik Arifin, Basuki Wibawa, Zulfiati Syahrial

Abstract: The intent of this paper is to survey the strength and weaknesses of facilitators in Collaborative Blended Learning programs, which were conducted in 13 cities in Indonesia, with 79 facilitators and 1,526 participants (1244 males, 282 females).

The program was supported by developers of a major multinational US based company, which was part of their global initiatives in Indonesia. The research project is actually based on a blended learning with 80% eLearning time and 20 % meetup with facilitators. These courses were free and offered to not only students, but also to IT Professionals. Near the end of the project, participants were provided with a brief intervention program of follow-up outreach, information, and resources. After completion, this study found interesting characteristics of facilitators, which impacted the success or failure of participants to finish the blended learning program. Thru competence assesment model the results of this paper are recommendations on how to be successful and what to avoid in a collaborative blended learning environment.

Keywords: Facilitators, collaborative learning, blended learning, competencies, assesment, learning environment

1. INTRODUCTION

This program was part of a global initative from a major mutinational company. The program was targeted to train 1000 Indonesian students and professional IT in mobile web technology. Because it should reach participants in 10 cities first, we decided to utilize the blended eLearning, which was 80% e-Learning and 20% face-to-face. The program was announced thru web site and we got more than 3400 applicants. After sorting eligible participants based on their respective qualification, we chose 1526 participants and the program was conducted in 2 batches. Each batch took 8 weeks to complete.

The project was intended to be a collaborative online learning and for this purpose we had recruited facilitators in each city. Each facilitator maintained between 10 to 25 participants.

2. COLLABORATIVE ONLINE LEARNING

2.1 Learners

The participants are mostly professionals IT and students who were eligible to enter the training. From the applicants, we filtered about 1500 candidates. It was known that in the IT world there are more males dan females developers. In our case the propotion were about 82% males and 18% females.

2.2. Facilitators

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2.2.1. Tasks of Facilitator

In a blended environment, the online facilitator is described as a person who is responsible for responding to and guiding on the participants to accomplish the tasks required. The main tasks of a faciltator are [1]:

- make sure that within 8 weeks there will be at least 2 meetup with the participants

- assist the participants to solve their works

- moderating meetup

- document all the learning activities, including feedback

Facilitator is not supposed to arrange a class-room like training. He or she can meetup with participants in any place with small group or even with an individuall if requested. The performance of facilitator will be monitored by the successfuly accomplishment of the participants in doing the labs, quiz, and exam.

Now the question: *does the success of the participants depend significantly on the effort and skills of the facilitators?*

The facilitators will be trained in a TTT (train the trainer) program centrally, so that they understand about the mechanism of the project, the learning materials, and the target of the program. In each city there will be one so called supervisor whose job is to maintain the relation with facilitators and to monitor the overall progress. This person is not necessarily a technical individual.

2.2.2. Smart Facilitators

In the literature review we found Bosede Iyiade Edwards and Adrian David Cheok [2] explained the key of success in delivering learning materials is to enggage technologies within pedagogies.
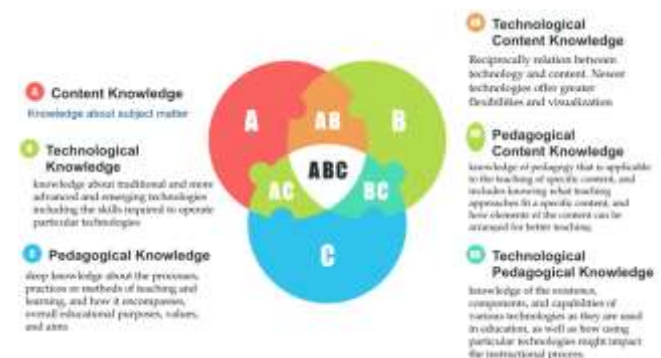

Figure 1: Three Elements of smart fascilitators [2]

These three Elements are the core of smart padagogies which is the building block of an "ideal" facilitator as in the ABC Part (see figure 1). In other words, to be able to support the content delivery, facilitators must possess these technological skills and content knowledge. And finally with the appropriate knowlede of padagogy, on how to teach in a class room and how to give mentoring services in the right way.

According to Liu et el. [3] in exploring four dimensions of online instructor roles, we consider *social engagement* as the fourth element. It refers to one's degree of participation in a community. The growth of IT communities is increasingly enormous. It is also a way to communicate between people with the same passion. The Facilitator should have competency, which is more than just knowledge and skills. It involves the ability to meet complex demands, by interacting with individual and mobilising interrelation of social factors including skills and attitudes in a particular context.

2.3. Blended Learning

Blended learning is about a mixture of 80% e-learning and 20% face-to-face. But why is this number? Is it effective enough? Once Bates [4] depicted a continuum of technology-based learning to define blended learning.

Figure 2: Definition of Blended Learning, taken from Bates [4] 2005

If the duration of the program is 8 weeks long and there are 40 hours lessons, and we have 2 times meetup, so we can determine 2 times 4 hours meetup which gives you 20% of the whole lesson. Actually it depends on the situation, how to devide the portion of e-learning and face-to-face can be revised accordingly.

2.4. Collaborating E-Learning and Face-to-Face Scenarios

From the beginning it was clear to use collaborative online training, because we have to control the learning outcomes in 13 cities and we were aiming good results for the participants to gain a new skill and knowledge. The participants will be assisted to overcome the complexities of learning activities [5][16]. At later time we recognized a language barrier, which most participants had to struggle with. 83% of participants stated in a questioner that they have this problem. This would cause extra effort for the facilitator, to make things clear and motivate the participiants not to stop trying. Syatriana et.al [6] stated that Indonesian students still have low English achievement.

Zurweni, Basuk Wibawa and Tuti [7] developed a collaborative-creative learning model using media virtual laboratory and proved to be effective to improve the quality of learning. Collaborative-creative learning will be maximized when using multimedia learning to support the realization of collaborative learning to produce creative behavior for students.

Participants should spend 80% of their time for e-Learning and the remainder 20% in a face-to-face meeting with the facilitator. The meeting could be arranged anywhere like in a campus-garden, small coffee-shop, or any convenient place. It could be arranged in small groups or even indivually. The facilitators act like a counselor, give advices, and other things that are neccessary for participants to continue their program.

At the beginning it was not clear how to increase the performance in a collaborative environment. However in the literature review we have learned a few ways to do this.

a. Flipped Blended Model

According to Wibawa and Kardipah [8], a combination of flipped classroom and blended learning environment takes advantage of technology for a more flexible learning environment and facilitates a more learner-centered as well as a more active learning in classroom. Participants can explore themselves in class by doing lab work or doing research in small group or individuals. "Flipping the classroom" means that activities that have traditionally taken place inside the classroom now take place outside the classroom and vice versa. This model fits with our concept, where face-to-face meeting should be done anywhere, not only in classroom.

b. Think-Pair-Share

The think/write, pair, share strategy is a learning technique [9] that encourages individual participation and is applicable across all grade levels and class sizes. Students think through questions using three distinct steps:

☐ Think: Students think independently about a question that has been posed, forming ideas of their own and write them down.

☐ Pair: Students are grouped in pairs to discuss their thoughts. This step allows students to articulate their ideas and to consider those of others.

☐ Share: Student pairs share their ideas with a larger group, such as the whole class. Often, students are more comfortable presenting ideas to a group with the support of a partner. In addition, students' ideas have become more refined through this three-step process.

These strategies proofed not only learning by peers, but also learning by teaching will enhanced the participants skills and knowledges [10].

The are more than 30 strategies for enhancing performances [9] that can be taken from Barkeley, Major and Cross in their book "Collaborative Learning Techniques". But we think we should start with the first 2 that we liked most.

3. COMPETENCE ASSESMENT

Competence-driven learning is defined as a knowledge based methodology which concentrates on measuring what a

73

person can actually do as a result of learning [10]. It is checked if participant can solve exercises or knows theories relevant to that topic.

The key thing about Competence Based Training is that you either can or can not (yet) do the thing that you are learning about [11].

Knowledge and skills gained from the project will be assessed through labs, quiz and exam. At the end of this program we hoped that the participants survived the training well, it means they didn't abandon any part of the learning process. We learned from the earlier MOOCs [12], one of the more troubling aspects of e-learning like MOOCs was their low completion rate, which averages no more than 10%. With a blended learning methods we hope that this will be significantly different due to influencing role of the facilitator[13].

Participants performing a task will possess a combination of skills, knowledge, attitudes, and behaviours required for effective performance of our activity. A competence is defined as the holistic synthesis of these components [14][15].

A participant should be able to finish the Lab completely, successsfully answer the quiz (minimum 70% right), and pass the exam at the end of the course. This will demonstrate a particular behaviour in doing the job, within the particular context and with a certain quality.

4. RESULTS

Group of Facilitator comprised about 61% professional IT (employed), 31% lecturer and about 7% were students with good subject matter knowledge. They were volunteers and offered their time to mentor the participants mostly at weekend or after working hours. That's why motivation is one of the most important part of their successfuly engagement.
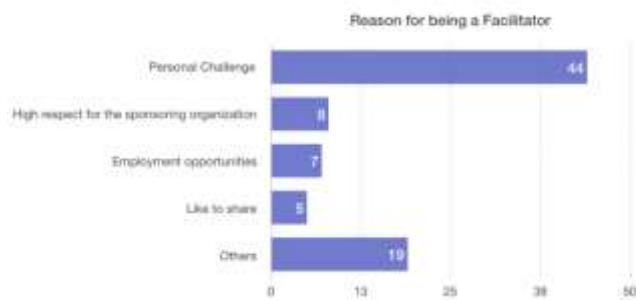

Figure 3: Motivation of Facilitators

Numbers of Participants and Facilitators

Description	Batch 1	Batch 2	Total
Registered Participants	2064	1416	3480
Selected Participants	732	794	1526
Male Participants	562	682	1244 (82%)

Female Participants	170	112	282 (18%)
Registered Facilitators	268		268
Selected Facilitators	42	36	79
Male Facilitators	35	30	65 (83%)
Female Facilitators	7	7	14 (17%)
Project Submission	574	595	1169 (77%)
No Submission	158	199	357 (23%)
Participant Passed	**395**	**444**	**839 (55%)**

Figure 4: Table of Participants and Facilitator

We see the passing rate is 55%, which might be sufficient for the stakeholder according to the target of one thousand participants: 839/1000). We listed the percentage of completed participant with the scoring of the Facilitator. The scores was given by supervisor in each city, by the project managers and based on the feedback of the participants. Criteria for scoring are skills, knowledge, pedagogical skills, social interactions, and level of responsiveness.
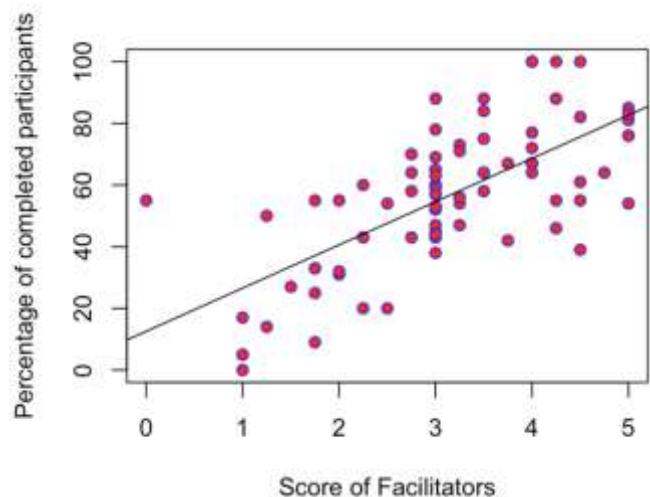

Figure 5: Scatter of percentage of completed participants and the competency of Facilitators

We used linear regression with Facilitator's Score as independent variable, and the percentage of passed students in the group of its facilitator as dependent variable. The graphic was plottet with R-language [17] using the fitting linear model function. The graphic shows that the number of completed participants depends significantly on the competency scoring of facilitators. The point on the far left

picture also shows that there were still paticipants who accomplished the training without help from facilitators.

We did some questionar to facilitators and found out that 67% facilitators had some difficulties mentoring the participants, notably because some of the participants didn't have enough background to join the program.

5. CONCLUSION

The Facilitator is criticial to the knowledge construction of the participants, because he or she is not only facilitating the learners providing resources they need, but also by motivating and ensuring that the participants are able to make a good progress and complete the program. The number of participants who had completed the course without help from a facilitator is small, but we found out that these persons had already good knowledge of the subject matter and english. There were also some participants who had difficulties at the beginning of the course due to the familiarity of e-learning and also due to problems of installing the necessary tools. Finally we should consider more carefully about entering behaviour in a free online course offering. The process of choosing the qualified participants at the beginning of the training should be more restricted.

Our findings indicate that facilitators need to have their roles transformed not only technologically and pedagogically, but also socially. In that sense they can establish a more engaging and fruitful environment for collaborative online learning.

We recommend that the process of recruiting facilitators should be based on 3 elements plus one: the content, the technical knowledge, the pedagogical knowledge, and the social aspects. In train-the-trainer program the learning materials should have more instructional topics, to give the facilitators good foundation to teach online and offline.

Collaborative strategy certainly enhanced better understanding through peer-learning, learning by doing and learning by teaching. The role of facilitator is a complex one and challenges associated with it should not be underestimated. As such, facilitators who are new to online teaching without the relevant background or experience should have been trained first in instructional strategies and social engagement.

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