

VBL Implementation of Flipped Learning at Binus University: Failures Experienced by Students

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Abstract. Since the global pandemic strikes, many universities in Indonesia begin implementing online-based learning to replace lectures in the classroom and reduce the transmission of the Covid-19 outbreak. Many educators start to apply flipped learning due to the massive development of virtual classroom as well as integrating video-based learning (VBL). This has challenged many academicians in higher education, and this collaborative research tries to investigate the failures of video-based learning integration in flipped learning classroom among the university students in Bina Nusantara University. This study aimed to investigate students' perceptions on the failures they experienced during the application of flipped learning using VBL. Both quantitative and qualitative data are utilized. The quantitative data reveal that the students consider themselves succeeded the English for Business Presentation Class (80%) and that the VBL help them to understand the material (70%). However, when asked about the sort of failures they encountered with the implementation of VBL in Flipped Learning, they mentioned several things such as: not being able to talk directly to the lecturer at that very moment, the videos are monotonous, the videos are using many difficult words, the videos are too long and the audio quality which are not consistently good.

Keywords: *VBL, Learning, Binus University, Failures experienced*

1. INTRODUCTION

The tremendous development of technology in this 4.0 era has significantly affected all educational aspects, including in the learning process, enforcing people who works in educational settings to have technology-savvy skills. Responding to the needs, all higher educational institution in the world create more virtual classes and provide online learning and blended learning to slowly change to modern educational era. Bina Nusantara University (BINUS), one of prestigious university in Indonesia, also accommodate technology in its learning process. Inline with its mission to become the world-class university, Bina Nusantara supports the educators of higher education in fields of research, teaching-learning process, community service and self-development with technology.

For fostering educators' pedagogy skills, BINUS applies several innovative and creative learning methods to its students. One of it is flipped learning. This learning method inverts the conventional

classroom-based teaching, where the students introduced to the learning materials before the class and during the class time, the students can deepen their understanding through discussion. Also, Video-based learning (VBL) is now recognized by Technology-Enhance Learning (TEL) researchers as a powerful learning resource in online teaching activities.

Roy and McMahan[1] mentioned that nevertheless, regardless of its popularity, video-based materials might risk the excessive cognitive load and distraction, might also be time-inefficient, create technical difficulties, and introduce a forced pace. Other than that, the design and production of high-quality educational video materials require resources and equipment; recording and editing can also take a long time. There might also be an imbalance among cognitive load, available resources, and working memory capacity, learning can be inhibited. Lastly, an overly difficult case

material that involve visual, auditory, written and investigation-based data can overload learners.

This study search to capture what sorts of failures students experienced through the implementation of VBL.

2. LITERATURE REVIEW

2.1. Flipped Learning

Lately, there has been many rapid changes regarding the concept of education. It develops from teacher-centered instruction into learner-centered learning modes. Given that, educator should be able to be both knowledge providers as well as learning promoters and play a big role in actively constructing student's knowledge.

One of the teaching models that is enticing and is currently often fancied is the one called "Flipped Learning", which replaces the common direct teaching in traditional courses. It requires students to apply knowledge and to achieve higher level learning objectives with the help of technology to make learning in the classroom easier and more comfortable. That way, teacher have more opportunity to save all class-time into teacher-student interaction instead of lecturing. In Flipped learning, there is an exchange of duty between teacher and inside and outside the class. With the guidance from the teacher, the students are imposed with intense responsibility for learning and are able to govern their own learning as well as have a say in the process. In doing so, it is expected that the students become more autonomous learners.

Bergmann and Sams [2] explained Flipped Learning as: what is traditionally done in class is done at home, and what is traditionally done as homework is done in class. Learners begin at home, learning with video lectures or screencasts by themselves prior to the class, and then engage in enriching activities that help them apply content at a deeper level. By flipping the learning model, the teacher attains more time to get in touch with the students in class, as the lecture time is put to homes through pre-recorded videos. Using videos has long been in use both in language teaching and micro-teaching sessions of teacher training. However, flipped learning is somewhat one step ahead of using videos in classes.

Compared to the previously used methods via computers or inverted classes, Strayer[3] explains the difference in which inverted classroom concept is novel with its regular and systematic use of interactive technologies in the learning process. It has long been agreed that the Face to Face learning environment is beneficial for group work, idea

sharing, immediate scaffolding, and individual inspiration. Hence, with the exchange in the allocation of time and locations for learning, Flipped Learning integrates two types of learning activities, active problem-solving learning activities and direct instruction/mastery learning activities [4].

In order to achieve a desirable structure, the lecture part of learning should be kept to a minimum and the inquiry, discovery, and application parts of the learning process should be allocated maximum time[5]. These recommendations largely correspond with recommendations in the Blended Learning literature. In addition, the Flipped Learning literature specifically addresses the need for a consistent course structure with thorough descriptions of the course and design rationales in the syllabus, as well as an introductory orientation that addresses learners' potential fear or resistance to a new method.

Assessment of FL courses should include a variety of instruments designed to evaluate higher-order thinking skills like critical and creative thinking skills and problem-solving skills along with content mastery[6]. Assessment also should provide learners with multiple ways to demonstrate their understanding [7]. The model of Flipped Learning unfolds on four main pillars, which are Flexible Environment, Learning Culture, Intentional Content, and Professional Educator.

2.2. The Video Based Learning

The shifting of higher education landscape leads to the usage of video in the university classroom and particularly given the advent of the "flipped classroom", one of the biggest developments over the past decade in higher education. As millions of students access video streaming from different platforms (e.g., YouTube, Coursera, Khan Academy, EdX, Udacity, Iversity) on a diverse number of terminals (desktop, smart phone, Video-based learning (VBL) is recently getting more attention as it gives the possibility of overcoming practical real-world constraints and explore the far greater potential of the usage of digital spaces. Video Based Learning encourages student-centered learning either within the classroom or at home, and can also be integrated in online learning systems (LMS, portal, e-class, etc.). The use of video for learning has become widely employed in the past years. Many universities and digital libraries have incorporated video into their instructional materials.

When it is properly used mentioned that video can be a powerful teaching medium. Video can help students visualise how something works, and show information and detail that is difficult to fully explain using text or static images. It can grab students' attention, thus motivating them and

engaging them with the subject. Other than that, it can provide concrete real-life examples, thus demonstrating the relevance of the subject to the real world. Video can simulate discussion, and lastly video can cater for different learning styles, specifically students who are ‘visual learners’.

Many instructors in higher education starts to use video lectures in a variety of ways, such as broadcasting lectures in real time, augmenting recordings of in-class lectures with face-to-face meetings for review purposes, and delivering lecture recordings before class to “flip the classroom” and to give activities during class time. However, there still is limited understanding of the efficacy and usefulness of each method.

3. RESEARCH METHODS

3.1 Research objective

The objective of this research was to investigate students’ perceptions on the failures they experienced during the application of flipped learning using VBL.

3.2 Research design

This study is a mixed-method research. Therefore, both quantitative and qualitative data are utilized. More specifically, this research deploys the notion of explanatory sequential design or also called explanatory mixed method research design. Hence, quantitative data are collected first before qualitative data. The utilization of mixed-method research is expected to strengthen triangulation of data which results in trustworthiness.

3.3 Data collection

This study was conducted in Binus University. To collect quantitative data, an online survey comprising of 5-likert scale items and open-ended questions was designed and assessed. The agreed survey was then delivered to the research subjects. The qualitative data was gathered through an open-ended question in the survey. The data were taken after students see all the 3 videos designed to deliver the material for English for business presentation for 3 weeks sessions.

3.4 Data analysis

For the quantitative data collected through questionnaires, descriptive statistics was performed. For the qualitative data collected through open-ended surveys and interviews, content analysis was administered. Content analysis might imply a group of procedures for the systematic, replicable analysis of text. The collected text was then investigated and sorted to interpret data and generate thick descriptions. There are several limitations in this study. One is the setting. This study was conducted in Bina Nusantara University. However, the samples only consisted of 30 students only from English from business Presentation class.

4. RESULT AND DISCUSSION

There are 7 interview question prior to the quantitative data gathering to get a glimpse of how the student would describe failure in studying in general which are:

- Explain please, in what point do you usually consider yourself failed in a lesson.
- In this English for business presentation subject, would you by far consider yourself succeeded or failed? Explain why would you think so.
- describe how the video help you to understand the topic in English Business presentation.
- explain what sort of failure did you encounter while learning using the videos.
- explain any factor aside the video itself that hinder you in learning using the video.
- describe your expectation when you know you were given video to watch by the lecturer.
- after three sessions you were given the video, would you say your level of understanding meet your prior expectation? If not, why.

After the students are interviewed, they then are asked to fill an online survey comprising of 5-likert with this measuring scale:

MEASURING INSTRUMENT: Validation Percentage Scale

TABLE 1. Measuring Instruments

No	Percentage of Achievement	Interpretation
1	76 - 100 %	strongly agree
2	56 - 75 %	agree
3	40 - 55 %	disagree
4	0 - 39 %	strongly disagree

When interviewed about at what point they usually consider themselves failed a lesson they mention several things such as: Can't participate appropriately, do not have a grasp of the topic after

learning, fail to focus because there are distractions in the video conferences, get lower score compared to their peers, and are not able to convey information back due the lack of vocabulary regarding that topic.

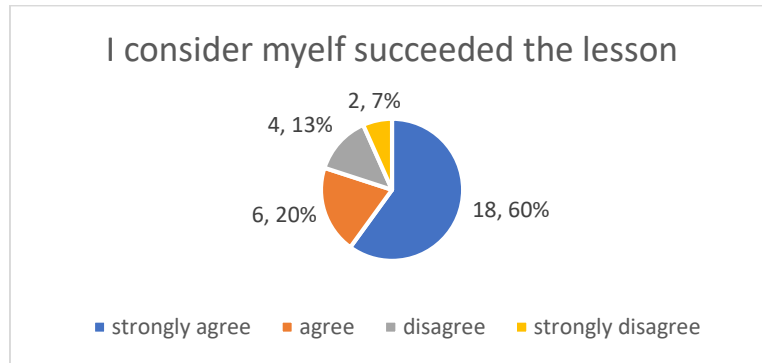


FIGURE 1. Considered themselves succeeded the lesson

When interviewed about how the videos help them to understand the topic in English for Business presentation, they mentioned that the videos are very simple, they works as additional information, they give new insights regarding the topic being

explained by the lecturer at that time, they give demonstration on how to do good presentation, and they contain visual to help me to fully understand the topic.

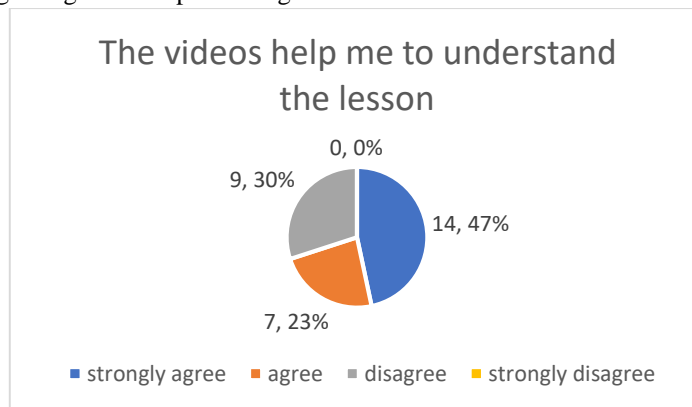


FIGURE 2. The videos help me to understand the lesson

When asked to explain what sort of failures you encountered while learning using the videos. They mentioned things such as: Distraction of other apps in their phones, connection problem, lack of focus,

unable to immediately ask lecturers, unfamiliar terms in the video, audio quality, and that learning from video takes more energy than offline classes.

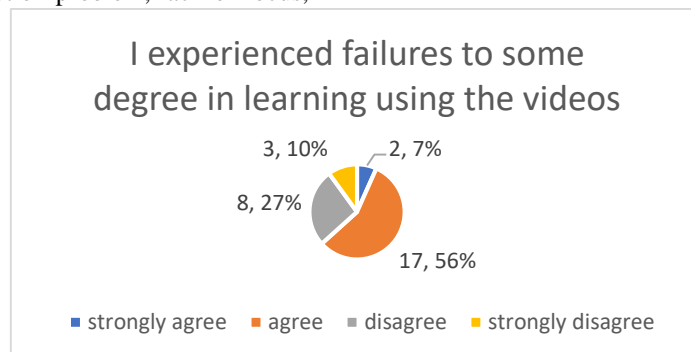


FIGURE 3. Experienced failures to some degree in learning using the videos

When asked about factors aside the video itself that hinder them in learning using the video, they

mentioned things like lack of concentration, and lack of confident in doing presentation.

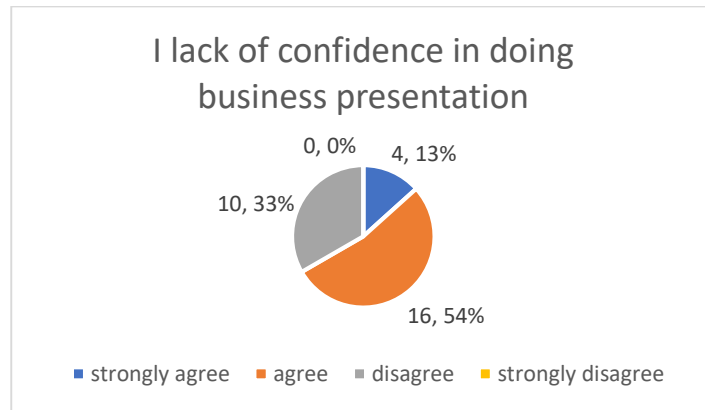


FIGURE 4. Lack of confidence in doing business presentation

When interviewed about their expectation when you knew you were given videos to watch by the lecturer. They expect to gain a new information that is beneficial and can be applied sometime later. And expect to improve my presentation skill and my

confident, and that the video would not be boring, and that the video would stimulate the students to do further research and gather information by themselves.

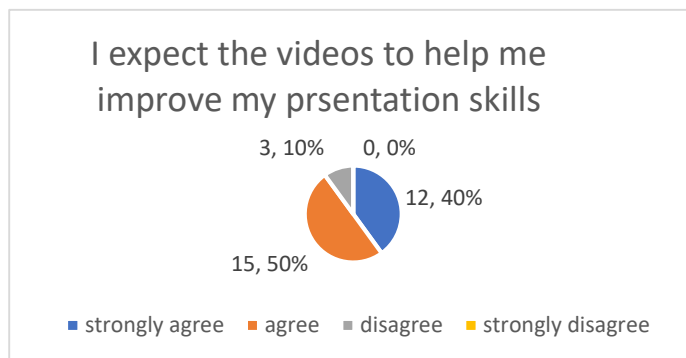


FIGURE 5. Expected the videos to help improve their presentation skills

When asked whether or not the videos meet their prior expectations, most of them basically agree that the video meets their expectation

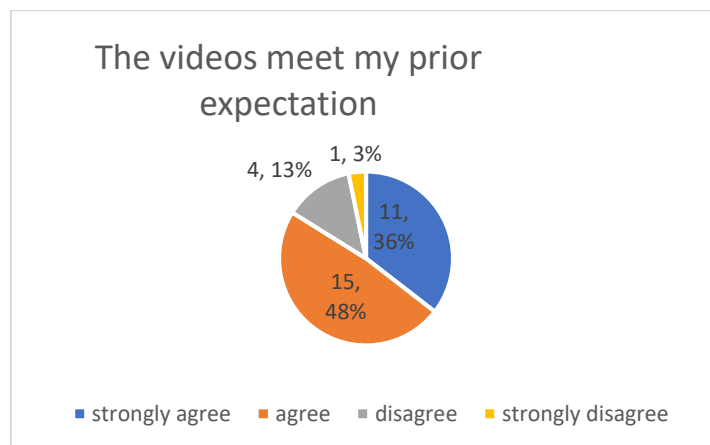


FIGURE 6. The videos meet my prior expectation

5. CONCLUSION

The implementation of Video based learning indeed show some benefits. We can see from FIGURE 1 that 60% of the students consider themselves succeeded the lesson, and that 47% of the students think the videos help them to understand the materials (as seen in FIGURE 2). However, FIGURE 3 show that nevertheless, there are still some ineviTABLE failures that students experienced, as 56% of the students says that they experienced failures to some degree in learning using the videos. This is due some hinderances such as distraction of other apps in their phones, connection problem, lack of focus, unable to immediately ask lecturers, unfamiliar terms in the videos, audio quality, and that learning from video takes more energy than offline classes. Aside factors from the videos, 54% of the students admitted that they lack of confidence in doing business presentation. Finally, at least 48% of the students would agree that the videos meet their prior expectation.

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