

# UTILIZING ZAPTION AS SCAFFOLDING FOR A FLIPPED CLASS OF INTEGRATED SKILLS

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*After eduCanon, EDpuzzle and etc., Zaption, an online application to create engaging video lessons, has now come in to play with exciting affordances to support the conduct of flipped classrooms. However, investigation on the implementation of Zaption in education seems almost untouched. Especially, Zaption use and flipped classrooms have been rather uncommon in English teaching in Vietnam. This paper reports on the innovation of using Zaption to create interactive videos as scaffolding for a flipped class of integrated Listening and Speaking skills. The project was conducted among 10 voluntary students from the Banking Academy of Vietnam who took part in a non-profit tutorial class of 6 weeks. The study investigates the effectiveness of Zaption use to create interactive videos, and the challenges to students in using them. Useful solutions were then recommended. Data was collected from questionnaires and interviews. The more-than-expected positive outcomes have been achieved with student high appreciation of Zaption use for its interactive mode, time saving, and motivation and learning autonomy enhancement. Meanwhile, the reported difficulties were primarily technically related. The research may, hopefully, provide an inspirational example of employing ICT in English classrooms, and a reliable reference to concerned researchers.*

*Keywords: Zaption, interactive videos, flipping videos, flipped class, inverted class*

## 1. Introduction

The flourishing of information communication technology (ICT) in the 21<sup>st</sup> century has bestowed upon the development of many social and economic spheres. In the realm of education, although the history of adopting technological affordances can be traced to 1960s (Tan & Tan, 2010), recent decades have witnessed the full integration of ICT in teaching and learning practices, especially in EFL and ESL teaching contexts by many practitioner researchers from tech-savvy to novice ones (Meyer, Wohlers & Marshall, 2014).

In this light, the idea of employing interactive videos to enhance the development of English communication skills, especially Listening and Speaking skills for students at the Banking Academy of Vietnam (BAV) seemed justifiable. However, due to a number of challenges including the big shortage of technological facilities, ICT supports, as well as the hesitation and unpreparedness of both authorities and lecturers as a consequence, the application of interactive videos in the teaching and learning English at the BAV has been a very uncommon practice. To be fair, videos have been utilized by some lecturers in teaching and learning; nevertheless, the

applications as such have unfortunately proved limited. It is firstly because videos are mainly used in the beginning of the lesson as warm-up activities, without being mentioned in latter parts of the lesson. Especially, such videos provide only a few opportunities of interaction for students, which make the act of watching videos passive (Merkt, Weigand, Heier, & Schwan, 2011). Given a broad consensus among scholars worldwide that videos have proved their important roles in language learning (Girgensohn, Frank Shipman & Wilcox, 2011; Ryan, 2016), the use of videos in my context should definitely be strongly encouraged, but in the direction of using interactive videos instead. More importantly, the utilization of interactive videos can open a new opportunity of organizing flipped classes – an emerging pedagogical method, well-embraced by the most radical practitioners in modern language classrooms (Tucker, 2012; Bishop & Verleger, 2013; Herreid & Schiller, 2013). The flipping class which allows more practice, checking and correction in class may possibly be an ideal counter-measurement for the shortage of practice time in developing English skills among BAV students due to few in-class contact hours, large-size classes, etc. Since the term “flipped classes” is completely new in my teaching context, it could take a huge amount of time for the transformation, if any in the future, from the traditional language classes to flipped ones. In this light, the integration of interactive videos created on Zaption could be the scaffolding for such the change of teaching and learning English language at the BAV.

In this research, since the lack of Internet and computers in the classrooms for both majors and non-majors of English as well as the fixed mode of traditional classroom in which students mainly learn theory in class and practice at home, conducting an investigation in a normal class was almost impossible. Therefore, under the permission of institution authorities and with the support of IT training center, I organized a non-profit tutorial class of 10 voluntary BAV freshmen majoring in English. This is a short course of 6 weeks, focusing on integrated Speaking and Listening skills. Lessons were designed based on students’ official learning program, but were conducted in the form of a flipped class, meaning practice was the main focus of in-class activities. To do so, I used Zaption (<http://zaption.com>) to create interactive videos as learning materials for students’ self-study prior to class hours.

## **2. Literature Review**

### **Interactive videos, online video creation and Zaption**

A bulk of recent studies have shown a striking number of ICT applications in English language teaching and learning (Tan & Tan, 2010; Gedera, 2014; Gosper, Mackenzie, Pizzica, Malfroy& Ashford-Rowe, 2014). Among those, videos and interactive videos have been mentioned by many recent researchers (Bloom, 1956; Schwan & Reimpp, 2004; Edel-Maizia, Brautigam, Bittner & Blackstock, 2014; Ryan, 2016, Arntsen, 2016)

Interactive videos can be defined as “the use of computer systems to allow proactive and random access to video content based on queries or search targets” (Zhang, Zhou, Briggs &

Nunanmaker, 2006, p.34). This means with interactive videos, students can not only watch the content but also response to the quizzes during their watching session. For their technically strong affordances, interactive videos have been used in many educational fields for medical undergraduate students (Laidlaw, 2007), law students (Hibbs and Vaughan, 1994), fire officers (Powell et al., 2008) or bus drivers (Rushby, 1987). In English language learning, using interactive videos “is quickly becoming one of the most popular ways for instructors to convey content to students.” (Ryan, 2016, p.25).

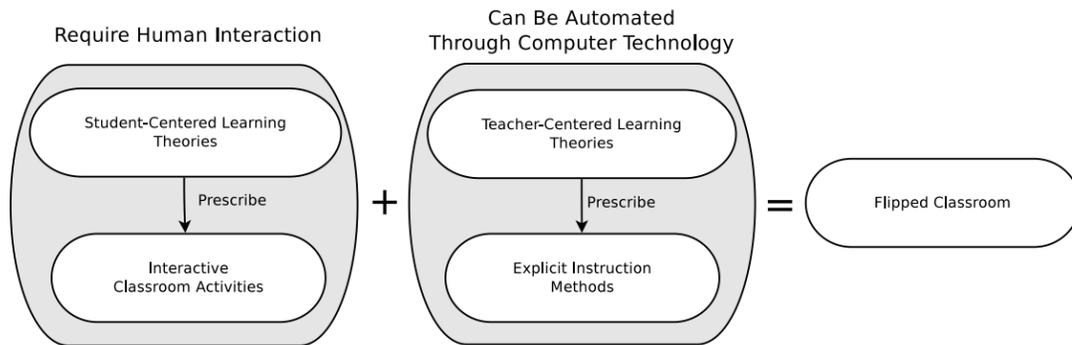
This fast-growing popularity could be explained by a great number of benefits of using interactive videos mentioned in many recent studies. Interactive videos firstly bestow on learners everything that videos in general can do, such as bringing outside word into the classroom, engaging learners, stimulating classroom activities and providing good models for learner output (Lanslord, 2014). They also help strengthen learner autonomy and allow great flexibility of use to suit different learning styles. (Cherrett, Wills, Price, Maynard & Dror, 2009; Ryan, 2016). Furthermore, “The multi-sensory learning environment created by videos increases an ability to transfer information from the short-term to long-term memory” (Cherrett et al., 2009, p.6). Secondly, when it comes to interactive modes, interactive videos generate effective instruction and a flexible and motivating learning experience (Wong et al., 2006), foster deeper learning and accelerate the process of skill acquisition (Bloom, 1956 & Schwan & Reimpp, 2004). Especially, when integrated into a flipped class, interactive videos contributed to saving more time for in-class practice.

In response to the popularity of interactive videos, there have been a great number of online video creation and display tools such as EnglishCentral, TED-Ed (Ryan, 2016), eduCanon, EDpuzzle and Zaption (Wong et al., 2006; Edel-Malizia et al., 2014; Arntsen, 2016). Particularly, Zaption, which shares quite many technological features with other interactive video tool like eduCanon and EDpuzzle, was born later, but “more robust” (Ryan, 2016, p.27) with a number of outstanding affordances (Edel-Maizia et al., 2014). Probably for that reason, Zaption became “the Oxford Dictionary’s Word of the Year for 2015” (according to Zaption blog <http://blog.zaption.com>). However, the research body on Zaption use has been very small in number, as far as I am concerned. Only in Edel-Malizia et al., (2014) the use and benefits of Zaption have been clearly highlighted. Besides allowing interactive video creation, Zaption was also mentioned as one in three popular interactive video assessment tools for the flipped classroom in their study.

## **Flipped classrooms**

Recent advances in technology and in ideology are combining to change the face of education (Bishop & Verleger, 2013) by introducing to classrooms a great number of attractive pedagogical methods. The flipped classroom, or the inverted classroom (Herreid & Schiller, 2013), is among the most striking illustrations. Opposite to the traditional classroom, the flipped classroom “employs asynchronous video lectures and practice problems as homework, and active, group-

based problem solving activities in the classrooms.” (Bishop & Verleger, 2013, p.2). It is defined more clearly by EDUCAUSE (2012) that “short video lectures are viewed by students at home before the class session.” (p.57). The model of flipped classroom can be shown as follows:



*Flipped classroom (from Bishop & Verleger, 2013)*

According to Ryan (2016), the flipped classroom has gained its popularity in advanced learning environment because “flipping works well with technology” (p.19) which allows for the maximization of time efficiency. Students can access the online videos conveniently, learning theory actively and independently at home and get well-prepared for the classroom practice. The flipped class also entails “more interaction, better attendance and higher pass rate” (p.20). Especially, flipping the classroom is believed to boost higher level learning skills, as shown in the figure below:



*Educational objectives of in-class activities for flipped learning (from Hwang et al., 2015)*

Whereas similar advantages of the flipped classroom has also been reviewed in many other studies (Cherrette et al., 2009; Tucker, 2012; Herreid & Schiller, 2013; Bishop & Verleger, 2013, etc.) only in Herreid & Schiller (2013) discussed the pitfalls and the challenges of the flipped approach, which concerns students’ resistance to a completely new method, heavy reliance on student learning at home and great time and effort of teacher in preparing lessons.

## **Student responses to interactive videos, Zaption use and the flipped classroom**

Only few studies report on student responses to the use of interactive videos created by Zaption and flipped classrooms in recent literature, and most of them show mixed perceptions among students. As put by Bishop and Verleger (2013), in-person lectures are more preferred over video lectures, but interactive classroom activities are appreciated than lectures. The flipping of classroom together with the use of interactive videos at home could lead to an increased cognitive load on learner due to the number of activities required and decisions needed, as suggested by Schwan and Reimpp (2004). Unwillingness to change new learning method and work independently at home has also been reported as a negative response among students (Cairncross & Mannion, 2001; Herreid & Schiller, 2013). So far, there has been no research on students' views on the use of Zaption.

### **3. Research aims & Research questions**

The research was conducted to firstly investigate the effectiveness of using Zaption as a tool to create online interactive videos used for a flipped class of English major freshmen at the BAV. Secondly, it aimed to identify the challenges for students in using interactive videos for their learning. The outcomes of this research are expected to initially shed light on the practicality of online interactive video application and the flipped learning in official teaching at a broad scale at the BAV in the future.

Tailored to these aims, the research was designed to answer the two following questions:

- 1. In what ways does Zaption with interactive videos support students' learning in a flipped class of integrated skills?*
- 2. What are the challenges of students in terms of using Zaption with interactive videos for their flipped learning?*

### **4. Methodology**

#### **Participants**

Due to the lack of technological facilities and the fixed education regime (i.e. traditional teaching method with theory lecture in classroom, and most practice at home), I organized a non-profit tutorial class of integrated speaking and listening skills for 10 voluntary English major freshmen at the BAV. Therefore, the research participants are the 10 students enrolled in this class. All the students are Vietnamese native speakers and were at Pre-Intermediate level in terms of their English language proficiency.

#### **Research methodology & Research methods**

This project is a case study which is under the interpretive paradigm. The research contains both quantitative data collected from student online survey and qualitative data from student semi-structured interviews. It should be noted that, thanks to the 2 typical affordances of Zaption, the

survey questionnaire was designed in the form of an interactive videos with survey questions integrated. In specific, different kinds of survey questions, including both closed-ended and open-ended questions could be created and shown on the sidebar of the video because Zaption allows creators to insert questions in forms of Check-box, Multiple choice, numerical response, open responses, or even discussion and allows viewers to respond to all of them. More interestingly, student responses were easily collected and presented in a well-organized record thanks to Google analytic affordance of Zaption. In other words, Zaption helped save a lot of time and effort in data collection procedure. 10 students in my class were invited to complete the survey questionnaire. Although semi-structured interviews could have been conducted in the same way, I decided to get 4 students involved in face-to-face semi-structured interviews. It was because off-line interviews allowed me to collect non-verbal responses as well which were very important for the reliability and trustworthiness of collected data.

## **Research design**

Initially, this project called for the participation of 10 voluntary freshmen of English majors. Out of 13 registers, the first ten students were selected to join a short course of 6 weeks learning integrated speaking and listening skills. Under the permission of the institution authorities and with the support of the IT training center, lessons were carried out in a computer-equipped classroom and had access to the Internet. This course was designed as a supplement to the official curriculum for English-major freshmen at the BAV. There was one lesson per week, conducted in the form of a flipped class. This means the students were firstly introduced to the website: <https://www.zaption.com> and were guided to sign in Zaption by using their accounts on Facebook, Google, Edmodo or by Zaption accounts. Most of the students used their Facebook and Google accounts. By using Zaption, I created interactive videos, showing theory or speaking models related to upcoming lessons and published them 5 days before the next class time. The students were supposed to watch the videos and showed their interaction by responding to quizzes or questions inserted in the videos. Then, in-class time was mostly spent on Listening and Speaking skills practice.

After 6 weeks of learning, all the 10 students were asked to response to a survey questionnaire video published on Zaption. Subsequently, 4 among them who showed their interest in the research topic or provided critical responses were invited to participate in face-to-face interviews. For confidentiality, 4 interview participants are made anonymous by using name codes as Spring, Autumn, Summer and Winter in the following part.

## **5. Results & Discussion**

### **5.1. Utilizing Zaption with interactive videos to support learning in the flipped class**

#### **Increased cognitive ability**

The great majority of the surveyed students reported that the use of Zaption interactive videos generally had a very positive impact on their understanding of the lesson content. Only 2

students were neutral and one other complained about its negative influence. All the advocates agreed that this benefit is attributed to the provision of not only text, but also visual aids and models in the videos.

*“Speaking models really help us to figure out easily not only what to speak but also how to speak. I learned a lot about how to use body languages, eye contact in speaking as well.” (Winter, int.)*

In addition, students’ free of choice in using control buttons like “pause”, “stop”, “rewind”, “skip” was believed to facilitate their process of theory understanding by 8 out of 10 surveyed students. This idea was clarified by similar responses of 3 out of 4 interviewed students.

*“It is much different from attending an offline lecture. I meant I can pause or rewind videos whenever I miss a point or need to be explained again.” (Summer, int)*

In addition, 4 survey respondents referred to the fact that they could search for information during video session to reinforce their understanding of the confusing matters. Especially, 7 students really appreciated the quizzes inserted in the videos. Probably, integrated quizzes and questions as typical affordances of Zaption videos made them further understand the key points, resulting in “deeper learning” among those students.

Surprisingly, the matter of place and time for learning was also mentioned by 3 surveyed students as the contributing factor to their understanding of the lesson, and was then explained by Summer in the interview:

*“Time for offline classes is fixed, but with learning online, you can learn whenever and wherever you like. I feel best focused when learning theory in the early morning, in my bedroom, alone. So using video lessons make me learn better.” (Summer, int.)*

This idea truly reflects the matter of learning styles among students. Likewise, the student who claimed the negative effect of watching interactive videos on Zaption explained that he simply preferred understanding via listening to a real person, not a machine. This view again addresses the matter of student learning styles.

However, much critical as it be, two out of four interviewed students hold the same multi-faceted view that despite the general benefits of Zaption interactive videos in enhancing cognitive ability, it sometimes might depends on the difficulty and the complexity of theory of each lesson.

### **Memorization ability**

The positive impact of using Zaption interactive videos was also acknowledged by most of the surveyed respondents. In the 1-5 rating scale (survey question 1), 4 respondents rated 5, 3 rated 4, and 3 neutral, leaving no negative comment on this. There is seemingly a strong connection between students’ understanding and memorization because the reasons explaining why using

Zaption interactive videos could reinforce understanding and memory capacity tend to be quite similar among the surveyed students. In specific, the exposure to visual aids and models, the ability of replaying videos, the provision of interactive quizzes or questions, and the free of choice of time and place for learning were mentioned by 6,4,5,4 and 5 students, respectively. The requirement of full attention in the content was also reported by 3 students as a contributing factor to their better recall of theory in the latter stage of classroom practice. Spring, in his interview also put that:

*“Learning alone in my own space better my focus, and therefore, make me remember key points more easily”. (Spring, int.)*

It should be analyzed that together with the concentration and other abovementioned factors, the use of lively and appealing visual aids and models creates a strong impression on learners’ mind; accordingly it support the process of transfer things in “short-term memory” to “long-term memory.

### **Active learning**

Zaption interactive videos were also strongly believed to be advantageous for active learning by two thirds of the students. When it come to the reasons why Zaption videos had strong impact on their academic activeness, 5 students mentioned the involvement of using technology, 6 students highlighted the free of choice of learning devices such as mobile phones or I pads, 4 students confirmed the importance of interactive quizzes and questions, and 2 appreciated the affordance of students’ comments and discussions. Especially, all the interviewed students put very positive comments on the role of interactive videos in active learning.

*“Watching learning videos may be boring sometimes and make students sleepy. Because we just watch and do little to nothing. But here, we need to watch with full attention to answer the pop-up questions. Interactive videos keep us alert and busy all the time.” (Autumn, int.)*

*“Learning with Zaption video is very interactive because besides responding to quizzes, we can also actively participate in discussions or putting comments for more understanding of the lessons.” (Spring, int.)*

Autumn’s critical idea truly reflected the current application of videos in many classes at BAV in particular as well as at many other educational institutions in Vietnam. Merely watching videos, in fact, may result in passive learning, but when interactive factors are integrated, it could be a very potential teaching and learning method.

### **Independent learning**

Making learning more autonomous was the most highly appreciated benefit of Zaption interactive videos with 90% of the surveyed students rating 5 in the 1-5 scale (survey question 1). The most significant factors influencing the enhanced learning autonomy among the students

include the requirement of responses to quizzes and questions (advocated by 6 students), the affordance of searching for further information at any time (5 students) the requirement of self-learning at home to be well-prepared for the practice in class (3 students). Among the interviewees, Spring and Winter showed a strong appreciation related to this matter:

*“Sometimes difficult theory with check-up quizzes challenged me, and I needed to learn by myself very hard because the teacher was not there. Then I had to refer to other sources. This did enhance my self-learning skills.” (Winter, int.)*

*“We came to class mainly for practice, teacher was not going to focus on theory anymore. Then, if I had not learned by myself, I would have failed to follow the class. Now, I knew self-learning is not too difficult.” (Spring, int.)*

It can be interpreted from Spring’s opinion that although the matter of independent learning has been highlighted among students, it might become a very specific task for students to do and to further develop in the flipping class.

### **Enhanced motivation**

Zaption interactive videos also played a significant role in building up learning motivation, which was advocated by 6 out of 10 surveyed students. Interestingly, 5 students put check-up quizzes as a contribution to their increased motivation.

*“After each key point, quizzes pop up to check my understanding. And it was so great that I could answer most of them very quickly. It showed where I got to in that short journey. And it was fun, too.” (Summer, int.)*

Allowing students to work at their own pace was mentioned for the first time as a motivational factor to their learning by 2 students.

*“Sometimes I cannot keep pace with other friends in other classes of mind. It usually takes me a litter longer to get the points. I often feel embarrassed and sad then. But, with Zaption interactive videos, I could rewatch them and learn at my own pace and at my own ease. It betters my taste to learning.” (Autumn, int.)*

### **Time efficiency**

100% of the surveyed students asserted that they had much more time for practicing speaking and listening skills. This was also the well-expected outcome of this flipping class.

However, the issue could be more critical when it comes to the increase degree of practice time in the classroom. It means whether the increased practice lived up to the prior expectation or not. Given part of the in-class time must be spent on theory review, it seemed that quite many students thought review was very essential. In fact, only 2 students said that they did not need the review, one explaining that he/she completely understand the theory and the other saying that

he/she prefer experiencing making mistakes in learning. Among 8 students seriously needed theory review in class, 1 claiming they often don't understand the videos, 2 quite understand but need to make sure, and 5 completely understand theory but not be ready for practice.

*"I like this way of learning, learning theory at home and spend more time for in-class practice. Even though I think I understand the theory already, sometimes I still need to be explained all over again. For sure."*(Winter, int.)

It could be easily seen that despite some acknowledged improvements in student learning capacity thanks to the use of Zaption videos, the matter of time efficiency has been a remaining issue. Most of the students seemed to be very new to the flipping class and not much confident about their self-learning. As a result, the time for practice increased but maybe not up to the expected level because it was as still occupied by a lot of theory reviewed time.

That explained why some students still wished to have more time for practice.

*"I think we could have had even more time for in-class practice if everyone had studied theory more carefully at home. We still spent quite a lot of time reviewing theory."* (Summer, int.)

In fact, theory review could not be skipped in any lessons. Instead, quite a lot of time was still spent on that.

## **5.2. Challenges to students in using Zaption with interactive videos for the flipped learning**

### **Difficult video content**

The difficulty levels in the video content were not a common problem to the students when only 2 surveyed respondents reported about it. It was then reinforced by the assertion of 2 interviewees.

*"Speaking and Listening skills do not usually contain very difficult theory as in Reading skills, especially in Writing skills. So, other classmates and I find it quite easy to get hold of the content in the videos. I even find it easier to understand than with normal lectures."*(Autumn, int.)

*"The theory is quite simple, with clear explanation in text, and examples are well-illustrative, so I don't think it is too difficult for any of us."*(Spring, int.)

### **Bad quality of videos**

Similarly, no one complained about the quality of the videos. It was firstly thanks to the availability of videos which can be well used for educational purposes, and secondly because of my careful selection. Since the appropriateness of videos as well as the quality of videos are equally important to maintain students' attention as well as appreciation, careful selection from

teachers as well as other appropriate adaptation and adjustment are the prerequisite to the success of video lessons.

### **Low computer literacy**

It is noticeable that no students referred to their ability of using computers and the Internet in general as a hindrance to their learning in this course. It could be well explained firstly that using video on Zaption doesn't require students a lot of manipulations. What they are supposed to do is to have a Zaption account, or to use their existing Google and Facebook account to log in. Then, they just join the Zaption group by using the code provided by teachers, then watch videos and answer some quizzes with some "clicks". Of course, students who do not often use computers and the Internet may be nervous or confused. However, in this class, these voluntary students were informed that they would use computers and the Internet for some online learning, and registers must have been well-prepared for that. In other words, the two reasons above explain why the matter of computer literacy was not a concern for the research participants despite it being a big problem for students in many technology-enhanced learning contexts.

### **Technical problems (computers, the Internet, etc.)**

In contrast, technical problems were reported by 6 surveyed respondents. However, since the students possess relevant technical usage skills, the technical issues explored in this research was primarily related to the Internet connection speed. A half of the interview respondents emphasized on this challenge as well.

*"Sometimes video loading took quite long, and there were interruptions during video session." (Autumn, int.)*

*"I downloaded the videos to avoid interruptions, but it took me ages, too." (Winter, int.)*

It is undeniable that technology has lent us very much to facilitate our learning, but at the same time we have to face with some inevitable challenges. The Internet connection speed has always been a challenge for Vietnamese students since they tend to share their Internet connection with others for economy. Therefore, this problem can only be avoided by using high quality Internet connection. As for the quality of Internet connection available in the classroom, it was not as good as expected, either, and therefore, resulted in a certain number of difficulties during the offline lesson.

### **Lack instant help from teachers or friends in theory conceptualization**

At the first glance, it is a paradox while only 2 students claimed about the difficulty of the video content, 4 surveyed students wished more instant support from teachers or friends in understanding theory. Besides, Spring also express their expectation of more immediate support from the teacher or friends.

*“It could have been much better if there had been someone to ask when I was uncertain about the content.” (Spring, int.)*

However, in relation with the fact that some students completely understood the theory already but still needed the theory review in the class for certainty, this expectation from students is understandable. The two above paradoxes indicates the feelings of uncertainty in some students about their self-study. This is going to be discussed in the following part.

### **Unfamiliar to this new learning method**

Indeed, it came as no surprise to me when 8 out of 10 surveyed students put that the flipped learning together with the employment of Zaption interactive videos were unfamiliar to them. This was again supported by the comments of all the interview respondents.

*“This is the first time I have self-studied the theory at home to prepare for the practice in the class. I think it is a very good way because practice deserves more time, but it should take time to get familiarized.” (Spring, int.)*

*“It is not the way we students usually do, so generally speaking, I sometimes feel uncertain.” (Winter, int.)*

As said, the feelings as such were unavoidable because the flipped class was organized for the first time in the teaching and learning practice at the BAV. It should be highlighted that some students were fully aware of the meaning and the purposes of this flipping.

### **Conclusion**

The findings of this study reveal more-than-expected impacts of Zaption interactive videos on students' learning. The students' high appreciation of the application of Zaption interactive videos in the flipped learning is attributed to the enhancement in their understanding, memorization ability, academic activeness, learning autonomy and motivation. However, time efficacy which should have been a benefit of the flipped learning seems not to be well achieved in this project because of the unfamiliarity of this new learning method to the students. In terms of the challenges in using Zaption interactive videos, the only concern should be addressed to the technical problems, i.e. the quality of Internet connection. Other anticipated problems were not reported by those students.

Despite some unavoidable limitations concerning the research scale, the study hopes to contribute better understanding of the impact of Zaption interactive videos on students' learning in general and as scaffolding for the flipped learning in particular. Accordingly, the critical findings are, hopefully, of significance to the teaching and learning at the BAV and to all the teachers and researchers of the same field of interests.

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## Appendices

### Appendix A:

## SURVEY QUESTIONNAIRES

(Note: This paper version is created for readers' easy reference. In real practice, all the questions were presented in the online video on <http://zaption.com>)

### 1. In what way did Zaption interactive videos influence your learning?

Circle the degree in the following 1-5 scale that best describe your opinion over each statement below.

(1: Very negatively; 2: Negatively; 3: Neutral; 4: Positively; 5: Very positively)

- a. It increased my understanding of the content: 1: \_\_\_\_\_ 2: \_\_\_\_\_ 3: \_\_\_\_\_ 4: \_\_\_\_\_ 5: \_\_\_\_\_
- b. It fostered my memorization of the content: 1: \_\_\_\_\_ 2: \_\_\_\_\_ 3: \_\_\_\_\_ 4: \_\_\_\_\_ 5: \_\_\_\_\_
- c. It enhanced my active learning: 1: \_\_\_\_\_ 2: \_\_\_\_\_ 3: \_\_\_\_\_ 4: \_\_\_\_\_ 5: \_\_\_\_\_
- d. It enhanced my independent learning: 1: \_\_\_\_\_ 2: \_\_\_\_\_ 3: \_\_\_\_\_ 4: \_\_\_\_\_ 5: \_\_\_\_\_
- e. It enhanced my motivation in learning: 1: \_\_\_\_\_ 2: \_\_\_\_\_ 3: \_\_\_\_\_ 4: \_\_\_\_\_ 5: \_\_\_\_\_

### 2. For each statement below, put a tick in one or more than one column 2-6 if the factor positively influenced your understanding, memorization, activeness, independence and motivation in your learning with interaction videos on Zaption? (Leave a blank if the statement is not true for you.)

(1)	Better understanding (2)	Better Memorization (3)	More active (4)	More independent (5)	More motivational (6)
- It requires me to work with technology					
- It allows me to learn on different technological devices such as laptop, mobile, Ipad, etc.					
- It allows me to listen and see text, visual aids and watch models, etc.					
- It requires my responses to quizzes or questions given.					
- It allows me to use control buttons like "pause", "stop", "rewind", "skip", etc. to adjust my watching pace.					
- It allows me to refer to other resources of information online during the videos when I need.					
- It allows me to learn at any of my convenient time.					
- It allows me to learn in any of my					

convenient place.					
- It allows me to learn at my own pace.					
- It requires my full attention in the content.					
- It allows/requires my comments and discussion sometimes.					
- It requires my studying the videos to perform the best in the in-class practice					
- Others (please specify): ..... ..... .....					

**3. Did you often need to review the theory in the class again? Please clarify the reasons by putting a tick in the box in the right or the left column. Then, below it, put one or more than one tick in the boxes to indicate the reasons why.**

Yes <input type="checkbox"/>	No <input type="checkbox"/>
Because: - I often don't understand the theory presented in the videos <input type="checkbox"/> - I quite understand the theory presented in the video, still I need to make sure with teacher's explanation. <input type="checkbox"/> - I completely understand the theory but not well-prepared for in-class practice. <input type="checkbox"/> - Other (please clarify).....	Because: - I completely understand the theory presented in the videos and I am well prepared for practice. <input type="checkbox"/> - I don't think I need to understand everything for my practice. <input type="checkbox"/> - I like to check my understanding via my practice. If I misunderstood, teacher would help based on my practice. <input type="checkbox"/> - Other (please clarify).....

**4. Did you have more time to practice speaking and listening skills in this class in compared with your normal classes?**

- Yes  - No

**5. What difficulties that you encountered when using interactive videos on Zaption to learn in this flipping class? It is possible to choose more than one option.**

- Difficult video content
- Bad quality of videos
- Low computer literacy
- Technical problems (computers, the Internet, etc.)
- Lack instant help from teachers or friends in understanding the theory.
- Unfamiliar to this new learning method
- Others: (Please clarify).....

## **Appendix B:**

### **SEMI-STRUCTURED INTERVIEW QUESTIONS**

1. How did interactive videos created by Zaption influence your understanding of the lesson content? Why?
2. How did interactive videos created by Zaption influence your memorization of the lesson content? Why?
3. Did the use of interactive videos on Zaption make your learning more active? Why or why not?
4. Did the use of interactive videos on Zaption make your learning more independent? Why or why not?
5. How did interactive videos on Zaption influence your motivation in learning? Why?
6. How do you think about learning theory mostly at home and spend most of the class time to practice? Why? Did you wish to have more time for skills practice?
7. What were the challenges of your using interactive videos on Zaption for this flipping learning?
8. Did you have any technical problems in using interactive videos on Zaption for your learning? If yes, what are they? Could you tell me more about this?