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Examining the Implementation of a Flipped Chinese Classroom in a University in Brunei Darussalam: A Mixed Method Research

ABSTRACT: Despite the promising potentials of using the flipped learning model, there are challenges lie in the practical aspects of implementing it. This study aims to provide implications to this problem, by investigating students' engagements in self-study materials and to explore the causal conditions of an adequate engagement. Adopting a qualitative driven mixed method research approach, both qualitative and quantitative data were collected concurrently. Qualitative data were collected using three instruments during and after a 14-weeks flipped classroom conducted from early January to end of April 2018 with a total enrolment of 65 university students in the required course, Mandarin I. Quantitative data were extracted from a LMS (Learning Management System) applied to support the flipped classroom. Both kinds of data were analyzed separately followed by meta-inference being made. In which, interpretations stemming from both qualitative and quantitative findings were integrated into a coherent whole. Findings revealed that the core phenomenon in this flipped classroom was students' diminishing access to self-study materials prior to face-to-face interactions in classes. Major causal conditions for this phenomenon were in Bruneian students' beliefs in learning, teachers play a dominant role in the learning process, and this belief tends to persevere. On the other hand, students' perceptions toward foreign language learning had changed through the study course, and their motivation in foreign language learning had changed consequently. When watching videos and other online activities transformed from fun activities into work or obligations, they felt less-motivated. Based on the findings, it is reasonable to suggest that establishing a positive rapport with students as an immediate and effective approach to motivate students' self-learning, hence to improve the effectiveness of a flipped design. KEY WORDS: Flipped Learning; Foreign Language Chinese; Motivation to Learn.

INTRODUCTION

The flipped learning design is defined as a pedagogical approach, in which direct instruction moves from the group learning space to the individual learning space; and the resulting group space is transformed into a dynamic interactive learning environment, where the educator guides students as they apply concepts and engage creatively in the subject matter (FLN, 2014; MacKinnon, 2015; and Fauzan & Ngabut, 2018). In ideal cases, students enrolled in a flipped classroom

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study new materials individually prior to class and then discuss, and interact with the teacher and their peers in classes to get deep insights of the learning material (Arnold-Garza, 2014; Jensen, Kummer & Godoy, 2015; and McLean *et al.*, 2016).

The flipped design model is especially welcomed in foreign language contexts since students enrolled in foreign language classes get few opportunities to actually apply the target language outside of the classroom. In some traditional classrooms, a big portion of the limited class time is mainly dedicated to introduce vocabulary, explain grammar, and other forms of content knowledge, while students are passively listening (Littlewood, 1999; Lee, 2009; and Shyamlee, 2012).

This meant that students received insufficient input, output, and interaction during class, particularly given the time constraints of a language class (Zhang, 2009; Gilakjani & Ahmadi, 2011; and Spino & Trego, 2015). Thus, using the flipped teaching approach has the potential to allow more time for students to study the language both inside and outside the classroom, because of the inverted learning process (Bergmann & Sams, 2012; Fauzan & Ngabut, 2018; and Santikarn & Wichadee, 2018).

Despite the promising potentials of flipped learning, there are challenges in applying it. At the initial stage of implementing the flipped classroom, students need to develop the readiness to accept, such model of education. E. Simon & C. Fell (2013), and other scholars, reported that resistance from students can be felt, when implementing the flipped model of teaching (Simon & Fell, 2013; Jensen, Kummer & Godoy, 2015; and Baker & Hill, 2016). Low self-regulated learners may procrastinate to review learning materials prior to the class (Steel, 2007; Klassen, Krawchuk & Rajani, 2008; and Filiz & Kurt, 2015).

In addition, it is reported that some students prefer lectures instead of online lessons, as they miss the opportunity to ask questions when the information is initially presented (Gysbers *et al.*, 2011; Lom, 2012; and Mazur, Brown & Jacobsen, 2015). This suggest that motivating students to devote extensive time to self-study with videos and other materials provided is a challenging factor hurdling the implementation of flipped learning (Nouri, 2016; Lo & Hew, 2017; and Nguyen, 2018).

To provide implications to this problem, it is necessary to investigate students' engagements in self-study materials to explore the causal conditions behind. To date, many studies have paid attention to how individual's characteristics, such as belief, motivation, and self-efficacy, relate to foreign language success. Most of these studies were in English as a foreign language contexts, which inevitably influenced by particular language learning beliefs and motivations. Besides, empirical studies on university students' adaptation to a flipped class design in a Brunei Darussalam context are very scarce (cf Booth & Gerard, 2011; Toshalis & Nakkula, 2012; and Paradewari, 2017).

This study contributes to the literature by reporting a flipped attempt in a foreign language Chinese classroom in Brunei Darussalam; and exploring what is the key factor(s) promoting or hindering students' adaptation to the flipped design. Hence, the research question guiding this study was: "What are the key factors promoting or hindering the success of the flipped attempt?".

The Flipped Design. Advanced to flip a beginner-level foreign language Chinese (Mandarin) module, the teaching staff had trailed videos and e-text books for the module on a LMS (Learning Management System), which was applied across every module offered in the university. The videos were made with Microsoft Power Point and voice-over in English. English is the major academic language in Brunei Darussalam and is served as the medium of instruction in beginner-level foreign language modules offered in the university (*cf* Moe *et al.,* 2012; Cobo *et al.,* 2016; and Chen, 2018).

Language learning topics, such as vocabulary, sentence and text comprehensions, and grammar features, were included in the learning material. Afterwards, the videos produced were uploaded to <u>www.</u> <u>youtube.com</u> and links to the videos were shared on the LMS. To provide precise pronunciations of the Chinese phonology, e-text books with click-to-sound features were produced and uploaded to a website developed by the teaching staff <u>http://lm-1403sem11718.ml</u>. The link to this website were then shared on the LMS.

In these e-text books, each new words and texts taught in the module were loaded with MP3 (Moving Picture 3)'s files. By clicking a word or a phrase, students can listen to its sounds. The teaching staff also prepared pages on the LMS according to the teaching progress and module syllabus. Every week's learning objectives and the learning content were listed on the Canvas page, where links to the relevant videos and e-text book web pages were also embedded (*cf* Dahlstrom, Brooks & Bichsel, 2014; Damsa & Fremstad, 2018; and Harnish *et al.* eds., 2018).

By the end of 2016, the Chinese module was yet to flip, all lectures were delivered in the classroom. The purpose of sharing the videos and e-text books was to collect feedback from the students on the accessibility and quality of these self-study materials. Students were encouraged to use these materials to assist their studies in the module (*cf* Goria, Speicher & Stollhans eds., 2016; Khalil, 2017; and Giannakos Krogstie & Sampson, 2018).

After one semester trailing time, the teaching staff collected feedbacks regarding the videos, the e-text books, and the LMS from students in an informal fashion. In general, students were satisfied with the accessibility of the module materials. Most of them give positive comments on the flexibilities of time and location to review module contents with the online materials (*cf* Herrington, Schrape & Singh eds., 2012; and Lamb, 2015).

Some improvements were made according to students' feedbacks. Firstly, English subtitles were added to the videos to boost better comprehension among students. Secondly, longer videos were separated into short clips around 5 minutes' long. Then, all these videos were embedded in e-text books alongside the notes on Chinese vocabulary, grammar, and phonetic rules. Besides, videos of situational conversations were added to the e-text book next to the relevant texts. The teaching staff also prepared quizzes on the LMS pages incorporating the use of new words and sentence structures to let students reflect on their learning progresses (*cf* Liou, Katchen & Wang, 2003; Ermawati, 2013; and Sung, Chang & Liu, 2016).

In Semester II of 2017/2018 (January 8 to May 13, 2018), an attempt to flip a beginnerlevel foreign language Mandarin module was made with another group of the university students. Of the 4 contact hours each week, about 2 hours' lectures were flipped by presenting the content on the LMS with soft copies of texts, notes, videos, e-text books, and quizzes. The other 2 hours' lectures were conducted in the classroom for activities, such as role play, presentation, group discussion, and translation to promote the higher level of knowledge and skills among students, while encouraging them to actually apply and practice the Chinese language in situational contexts (cf Tomlinson & Whittaker eds., 2013; Tseng, Broadstock & Chen, 2016; and Chen, 2018).

Lecturers were followed by drills, practices, assignments, and other forms of workload to consolidate students' learning of the target language. In the first 2 weeks, the teaching staff prepared students to adapt to the flipped design by direct introductions in the classroom and providing videos and quizzes on the LMS. Throughout the 14-weeks lecturing period, students had been constantly reminded to access to the LMS pages and to complete the quizzes on each page (*cf* Embi ed., 2014; Demirel, 2016; and Stelovsky *et al.*, 2018).

METHODS

The Current Study. This study was carried out to examine the implementation of a flipped design, to explore the explanation of the phenomena. Therefore, a qualitative driven concurrent mixed method approach was adopted (Creswell *et al.*, 2011; Bentahar & Cameron, 2015; and Matsaganis, 2016). In this study, as B. Johnson & L.B. Christensen (2017) and other scholars suggested, qualitative components which collected concurrently with the quantitative components had the primary emphasis.

Table 1:
Data Collection Timeline in the Semester II 2017/2018 Academic Year

Week 1	Week 2–Week 13	Week 14	Week 15 (1 Week After Lecturing Period)	Week 16 (2 Weeks After Lecturing Period)
No data collection	Teachers' dairies	Distribute the survey	Extract analytics form the LMS and collect survey data	Group interview

Quantitative components were collected based on the rationale of complementarity for a mixed study, which is to improve understanding the overlapping and different facets of a phenomenon (Creswell *et al.*, 2011; Yilmaz, 2013; and Johnson & Christensen, 2017:497).

The Participants. The research took place in the Semester II of the 2017/2018 academic year. The study participants were level-1 Mandarin students (65) and the teaching staff (1). Based on students' preferences with the class timetable, they were divided into 3 groups (20, 20, and 25 in each group), and one group attend a class at a time with one teaching staff. All of the students had the same accesses to the module pages on the LMS (Learning Management System).

Data Collection. Data were collected using various instruments during and two weeks after the 14-weeks semester. Four instruments we used were: (1) teachers' diaries; (2) a group interview; (3) an online survey; and (4) analytics extracted from the LMS. Data collection timeline through the study course is demonstrated in table 1.

From week 2, the teaching staff kept teachers' diaries to record what happened during the classes in terms of students' adaptation to the flipped design. One teacher observed students' actions in the classes and recorded down her perceptions of students' engagement in classroom activities and reactions to teachers' questions. The dairy was also used to refine the flipped approach. The observation was semi-structured and therefore hypothesis-generating, which would allow for subsequent clarification in the course of the study, by means of the other data collection methods (Cohen, Manion & Morrison, 2007; Duke, 2012; and Canals, 2017).

We were relying on an online survey to provide richer data than would be possible to gain from the observation. The major purpose of such procedures was, same to what R.K. Yin (2009) had argued, "*to corroborate certain facts that you already think have been established*" (Yin, 2009). The open-ended questions in the survey questions were, then, designed to check our findings from the observation, for purposes of trustworthiness (Yin, 2009; Creswell *et al.*, 2011; and Harzing, Reiche & Pudelko, 2012).

The survey was conducted online in week 14, the last week of the lecturing period of the semester on students' perceptions of the flipped design. The link to this online survey was distributed to all of the students via a module announcement. Students participated in the survey on a voluntary basis. Since all students had equal accesses to the survey, we believed the survey data was collected through an equal probability of selection method; thus, represent the population of student participants in this study. Among 65 students, a total of 35 valid responses were collected. Data collected from the open-ended questions were, then, transcribed by the same observer who recorded the teachers' diary (cf Jacelon & Imperio, 2005; and Duke, 2012).

The same survey also provided quantitative data for this study with Likert-scale questions. These questions gathered information on students' demographics, such as their age, major, native language, as well as information concerning their online learning experience and computer literacy, especially with regard to the purposes they have when using a computer or a smart tablet (Mathers, Fox & Hunn, 2009; Yin, 2009; and Harzing, Reiche & Pudelko, 2012).

All the student participants were university students aged from 17 to 25 years old. Female to male ratio is 7.1 : 2.9. The majority (91.4%) of them were unemployed. Among 35 student participants, the biggest group of 14 students

were major in Arts and Social Sciences. Students major in Science and Business-related subjects were 10 and 8 respectively. The rest of the student participants were from the Nursing Program (2) and Brunei Studies Program (1). Their ethnical backgrounds differed as 68.6% was Malay, 22.9% was Chinese, and the other 8.6% was other ethnics.

The students were similar in terms of experience and comfort with technology and access to computers and smart tablets. They use their computers mostly for entertainments, social contacts, collecting online information, processing documents, and educational purposes. More than half of them were familiar with social media applications, websites, and the Microsoft tools (Dogruer, Eyyam & Menevis, 2011; and Alsufi, 2014).

However, only a minimum of them (5.7%) were familiar with online learning websites and tools. Besides, they all have sufficient access to the internet, computers, and smart tablets. It can be argued that the flipped classroom method can be sufficiently accommodated by the cohort of students being surveyed (Yin, 2009; Harzing, Reiche & Pudelko, 2012; and Alsufi, 2014).

Beside the survey, the analytics on students' online activities and accesses available to teachers' account holders on the LMS (Learning Management System) were extracted one week after the lecturing period to analyze students' engagement in online activities (Dogruer, Eyyam & Menevis, 2011; Harzing, Reiche & Pudelko, 2012; and Alsufi, 2014).

Toward the end of the course, the teaching staff also conducted a group interview with 9 module students to examine their perceptions and attitudes toward the flipped approach. These 9 module students were selected randomly. The interviews lasted about 45 minutes at the interviewer's office. Comparing to the survey, the group interview allowed instant informant feedbacks during the session. The teacher-researcher also shared her observation findings with the students during the session to "*clear up areas of miscommunication*", thus helped to improve the creditability of the data (Johnson & Christensen, 2017).

Data Analysis. Data was analyzed using

multidata-multianalysis in the mixed analysis matrix as proposed by A.J. Onwuegbuzie *et al.* (2007) and other scholars. Both data types, i.e. quantitative and qualitative, were analyzed using both analysis types, i.e. quantitative and qualitative, separately and concurrently (Onwuegbuzie *et al.*, 2007; Creswell *et al.*, 2011; Bentahar & Cameron, 2015; and Matsaganis, 2016).

In this study, the analysis of the qualitative data adopted a grounded approach, where findings were grounded in data systematically gathered and analyzed (Strauss & Corbin, 1994:273; Khan, 2014; and Matsaganis, 2016). The constant comparative method was employed to analyze the data collected in the teachers' diary in the manner summarized by B. Johnson & L.B. Christensen (2017), and other scholars, that involves constant interplay among the researchers, the data, and the developing theory (Jacelon & Imperio, 2005; Duke, 2012; and Johnson & Christensen, 2017:46).

The teachers' diary was coded in three stages: open coding, axial coding, and selective coding proposed by A.L. Strauss & J. Corbin (1994) and other scholars. Firstly, every week's diary were read and coded to identify categories of elements in the data. Terms found in this stage include "*selfmotivated*", "*time management*", "*teacher-driven model*", "*instant feedback*" among others. In the next stage, during the axial coding, these terms were developed into more abstract themes and were organized to explore the possible relationship among these themes in the data (Strauss & Corbin, 1994; Duke, 2012; Gallicano, 2013; and Bulawa, 2014).

By then, an initial model for students' adaptation and engagement in a flipped classroom was made. This model was, then, rechecked with the data until the theoretical saturation was achieved in the last selective coding stage. Additional qualities data collected from the other instruments were, then, analyzed in the same fashion to clarify, develop, and validate the findings developed (Bentahar & Cameron, 2015; Matsaganis, 2016; and Uzunboylu & Karagozlu, 2017).

On the other hand, quantitative data collected was served to provide a better

description of the phenomenon in a flipped classroom. Descriptive statistics were, then, employed to analyze numeric data in this study. The findings were then compared and integrated to the findings from the qualitative analysis to achieve a coherent result (Creswell *et al.*, 2011; Bentahar & Cameron, 2015; and Matsaganis, 2016).

Adopting a qualitative driven mixed method research approach, this study collected both qualitative and quantitative data concurrently. Both kinds of data were analyzed separately followed by metainference being made, in which interpretations stemming from both findings were integrated into a coherent whole (Tashakkori & Teddlie, 2003; Creswell *et al.*, 2011; Bentahar & Cameron, 2015; and Matsaganis, 2016).

RESULTS AND DISCUSSION

The first experience of flipping a foreign language Mandarin (Chinese) module for an entire semester achieved some success and provided valuable data on how to improve the future incarnations of the subject.

The Core Phenomenon. The study examined an experience in implementing the flipped design in a foreign language Chinese classroom. Teacher's diaries recorded that the core phenomenon of this experience was students' adaptation to the flipped approach in terms of their accesses to the self-study materials outside the classroom. In this context, N.B. Milman (2012) and other scholars argued that the flipped classroom activities serve a function of consolidating learners' content knowledge, which they shall have built up some understandings of in advance (Ellis, 2008; Milman, 2012; Jensen, Kummer & Godoy, 2015; and Shih & Tsai, 2017).

This repurposing of class time enables learners to inquire about lecture content, test their skills in applying knowledge, and interact with one another in hands-on activities (EDUCAUSE, 2012; Zhang, Wang & Chen, 2015; and Yang, Yin & Wang, 2018). The data from the teachers' diary showed that students' accesses to self-study materials and their participation in class activities had been dropping. In the first 2 weeks of the study course, most students demonstrated fair understandings of the content knowledge delivered prior to classes. Most of them participated in class activities with confidence and frequently contributed to class discussions (*cf* Jacelon & Imperio, 2005; Duke, 2012; Zhang, Wang & Chen, 2015; and Yang, Yin & Wang, 2018).

However, the group size of these students gradually reduced toward the end of the semester. It appeared that though most students understood the importance of mastering the content knowledge to build up communication skills in classes, they intended to have a brief look at the content knowledge in classes instead of studying in advance or reviewing previous learnt texts after classes. This tendency resulted in hindering the progress of classes. At times, the teacher had to surrender class time to deliver content knowledge to the whole class (*cf* Zhang, Wang & Chen, 2015; Serdyukov, 2017; and Yang, Yin & Wang, 2018).

This observation was supported by the analytics extracted from the LMS (Learning Management System). Figure 1 shows the statistic of students' online activities by date. The activities include both page views and guiz participation on the LMS. The total access was the largest in the week 2 of the module's teaching period, with 4,594 page views and 70 quiz participation recorded. The access number dropped gradually in the following weeks, until to less than onefourth of the largest access in the week of mid-semester break. The accesses in the following weeks appeared to fluctuate, but still remained at a low level. Toward the end of the semester, the access increased dramatically with doubled the page-views and quiz participation. The teachers' diary did not record this access increase. We predicted this increase happened, because students were studying for the final examination (cf Jacelon & Imperio, 2005; Duke, 2012; Zhang, Wang & Chen, 2015; and Yang, Yin & Wang, 2018).

The analytic also showed that each student's accesses to the online materials were diverse. Individuals' total pageviews ranged from 66 to 1,585; and quiz participation ranged from 2 to 26. In figure 2, student page views arranged in a bigger to

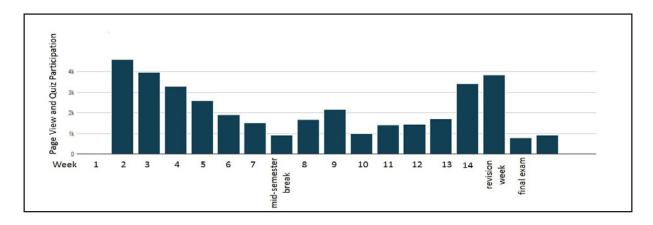


Figure 1: Student Online Activity by Date

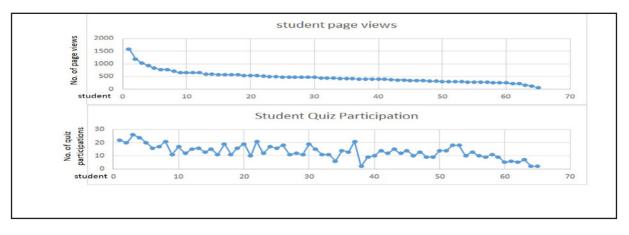


Figure 2: Comparison of Student Page Views and Quiz Attempts

smaller order were compared to each one's quiz participation. It showed that students conducted more page views intend to make more quiz attempts and vice versa.

Beside page-views and quiz-participation, we also examined each student's total access time. Figure 3 demonstrates that individual student's total access time ranged from only 2 hours to more than 400 hours. However, the majority of the students had a total access time of less than 60 hours. The online materials were designed with 2 hours' worth of time per week and 28 hours in total for a 14-week semester. There were about 30% students full-filled this designed time.

Based on the data, we concluded that students' engagement in online materials were not satisfactory. At the beginning of the semester, they were active with self-study materials probably because they were curious about the new teaching method and without that much workload from other subjects. Toward the end of the semester, the access increased indicated that they had built up the idea that studying with the online materials can help them to achieve a better result. But, during the study course, they decided to leave without viewing the pages and doing the quizzes for various reasons (*cf* Schwartz, 2012; Serdyukov, 2017; and Yang, Yin & Wang, 2018).

Strategies. Data from the teachers' diary also showed that students demonstrated a variety of strategies to adapt to the flipped design. According to educational psychologist, N.J. Entwistle & P. Ramsden (1982), undergraduate students need to be supported to move away from surface learning approaches characterized by the mere memorization of content for the purpose of scoring well on examinations toward deeper

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		Access Time
	480:00:00	
	432:00:00	
	384:00:00	
m	336:00:00	
total access time	288:00:00	
	240:00:00	
lac	192:00:00	
ota	144:00:00	
+	96:00:00	
	48:00:00	and the second
	0:00:00	***************************************
stud	ent	1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 6

Figure 3: Individual Total Access Time to the LMS (Learning Management System)

learning strategies (*cf* Entwistle & Ramsden, 1982; McLean *et al.*, 2016; and Yang, Yin & Wang, 2018).

In ideal cases, deep and active learnings are supported in the flipped classroom during face-to-face interactions (Roehl, Reddy & Shannon, 2013; McLean *et al.*, 2016; and Yang, Yin & Wang, 2018). But the success of these interactions relies on the extent to which students have prepared themselves before engaging in class activities (Hurst, Wallace & Nixon, 2013; Kim *et al.*, 2014; and McLean *et al.*, 2016).

Y.L. Chen et al. (2014), and other scholars, also reported that some of their observed students struggled to adapt to flipped learning and fell behind in class discussions or handson activities because they had not watched any videos before class (Chen et al., 2014; Leeuwen, 2017; and Yang, Yin & Wang, 2018). Data from the teachers' diary, the online survey, and the group interview all showed that most students were aware that access to self-study materials was the key to a good performance in the module. However, their strategies to improve their engagements in self-studying were two-faced (cf Jacelon & Imperio, 2005; Duke, 2012; Zhang, Wang & Chen, 2015; and Yang, Yin & Wang, 2018).

It is recorded in the teachers' diary that there were a few students reflected on their own learning situations and strategies, and sought solutions to solve language learning problems proactively. Data from the survey and the group interview supported this observation and showed that students were aware that they need to reflect on their learners' autonomy and to improve time management skills, independent learning skills, and skills with the internet and computers, to adapt to a flipped learning process. During the interview session, Student A mentioned that:

[...] I think I could have learnt more and better if I did checking out all the pages on time, but when I had a lot of assignments to do, I just did not have time to study. (Pause) But, when I am free, I really did watch the videos (interview with Student A, 2/3/2018).

Student B supported Student A and shared his strategy as following here:

Actually this module was a good experience. I had practised self-study in this module. But, I need to be strict with myself and stick to the schedule to study the language. It's hard (laughter). So, I made a deal with my friend to watch each other (interview with Student B, 2/3/2018).

On the other hand, some students would seek solutions in a teacher-centered model, when they felt that they were struggling with the language learning. Actually, it is very common among foreign language students, especially Bruneian students, to struggle with the Chinese language (Ellis, 2008; $\bowtie =$, 2014; $\bowtie =$, 2016; and Shen, 2017).

The online survey showed that though most students cherish the flexibilities in a flipped classroom, a big group of them would like the teacher to take actions in a way to "force" them to study. They requested the teacher to give more homework and tests, deliver most of the content knowledge in classes, and prolong face-to-face interactions. Besides, quite a few of them suggested the teacher embed cartoon and animation into the videos (*cf* Harzing, Reiche & Pudelko, 2012; Graziano, Huion & Gilfillan eds., 2014; and Chen, 2018).

We argued that some students' learning styles are passive, and they have an attitude in common that the teacher shall be responsible for students' motivation. It is also apparent that they were relying on motivations to study the Mandarin module, and extrinsic motivation played a dominant role in this process (*cf* Sysoyev, 2014b; Tseng, Broadstock & Chen, 2016; and Kwok, 2017).

Outcome. Initially, we had considered using pre- and post-study language tests as a measure of the effectiveness of teaching. But, it would be impossible to control each students' motivation level, learning methods, and other inevitable variables determining learning performances in Mandarin language module. In this context, N. McBeath (2006) and other scholars argued that test results are not particularly revealing in explaining the reasons behind student progress (Baker et al., 2010; McBeath, 2006; and Tseng, Broadstock & Chen, 2016). We, then, decided to take participants' perspectives on the effectiveness of the flipped design. A large portion of research has shown increased student satisfaction with the flipped learning approach (Critz & Wright, 2013; Davies, Dean & Ball, 2013; Mason, Shuman & Cook, 2013; Zhang, Wang & Chen, 2015; Demirel, 2016; Tseng, Broadstock & Chen, 2016; Lo & Hew, 2017; Uzunboylu & Karagozlu, 2017; and Chen, 2018).

In this study, 28 (80%) students found the flipped design to be more engaging than lectures only teaching model; 30 (88.5%) confirmed that the flipped design was introduced to them clearly; same number of students expressed their favorable comments on the accessibilities and flexibilities in the flipped classroom. More than 60% of the responses showed that students were satisfied with the self-study materials, though their preferences for each item were varied. Almost all of the valid responses reported that they had gained deep insights into communication and foreign language learning through in-class activities (33), and had improved self-studying skills (30). In the group interview, data also showed that students gain some higher level skills in general, such as compare, analyze, and critical thinking (*cf* Baker & Hill, 2016; Wang & Seepho, 2017; interview with Student C, 7/3/2018; and interview with Student D, 7/3/2018).

On the other hand, data from the teachers' diaries also revealed that outcomes of the flipped experiences varied. As mentioned above, students were in general satisfied with the learning experiences, but their adaptation to the study model was hierarchical. From the observations, we found that some students demonstrated active learning skills. They had shown deeper understandings and higher level skills in class activities (*cf* Jacelon & Imperio, 2005; Duke, 2012; and Leeuwen, 2017).

Data from the group interview supported this observation. Some students claimed that the learning experiences in a flipped Chinese language classroom also helped with their learnings in other subjects. A range of gain reported including analysis skills, resources selection skills, and critical thinking skills (*cf* Wang & Seepho, 2017; Yang, Yin & Wang, 2018; interview with Student E, 11/3/2018; and interview with Student F, 11/3/2018).

On the bottom of this hierarchy were students who failed to participate in class discussion and activities. Their development in Chinese language proficiency was minimum. Though our data did not show whether the students had developed higherlevel learning skills after participating in the flipped learning model; however, it is reasonable to assume it was very limited (*cf* Xiao & Wong, 2014; Wang & Seepho, 2017; and Yang, Yin & Wang, 2018).

Middle-level students in this hierarchy did not notice significant improvement from the flipped learning experiences. We argued that this study was limited in terms of scale and time. Student participants in this study had no foreign language Chinese learning experiences advanced to the study period. Therefore, they did not have opportunities to compare the flipped learning with previous learning experiences in foreign language contexts. Further comparative studies could be conducted to gain deeper insights in this matter (Chang, 2011; Tseng, Broadstock & Chen, 2016; and Tseng, Lin & Chen, 2018).

Causal Conditions. We argued that one of the core phenomena of this flipped experience was students' diminishing accesses to the self-study materials outside the classroom. We, then, analyze the data to identify causal conditions determining students' accesses to self-study materials (*cf* Chen, 2015; Banka, 2017; and Wang & Seepho, 2017).

Research had revealed that beliefs in language learning may have a profound influence on *learning behavior* (Cotterall, 1995; and Xu, 2012) and on *learning outcomes* (Weinert & Kluwe, 1987; and Hosseini & Pourmandnia, 2013). In our study, the teacher's observation reported that students' beliefs and perceptions of foreign language learning changed throughout the study course.

However, their beliefs in the teacherstudent relationship had never been challenged in the flipped classroom. Most of the students would not take the teachers as a facilitator to help them unpack new concept and meanings in the learning process as intended in flipped methodology. They intend to see the teacher as an information presenter or a content deliver. And, teachers shall be responsible for their learning behaviors (Kwok, 2017; Wang & Seepho, 2017; and Tseng, Lin & Chen, 2018).

Both survey and interview data showed that students believed a good teacher shall be sensitive to problems students have in learning and be able to motivate her students. They perceived that the self-learning material online was an extension of the teaching, but could not replace the teacher in delivering content knowledge (*cf* Huang, 2016; Banka, 2017; Kwok, 2017; interview with Student A, 2/3/2018; interview with Student C, 7/3/2018; and interview with Student E, 11/3/2018).

The data also revealed that students' beliefs and perceptions of the difficulty of language learning, foreign-language aptitude, the nature of language learning, learning and communication strategies, and motivation and expectations were diverse and had changed. We supposed that these changes lead to the changes in the students' access to online material although not confirmed in the analysis of this study (*cf* Zhong, 2015; Kwok, 2017; Burns & Garcia, 2018; and Tseng, Lin & Chen, 2018).

Another causal condition we identified was the students' motivation. Similar to students' beliefs, teachers' diary showed that students' motivation levels have been changing through the whole semester. At the beginning of the semester, students demonstrated a higher level of intrinsic motivation; they were in general very interested in the Chinese language and culture, and also the module design. Toward the end of the semester, they were less motivated to learn. This probably because learners' personal epistemological beliefs are significantly related to the learning strategies they use, their academic performance, and their motivation. When their beliefs changes, their motivation could be diminished (Jacelon & Imperio, 2005; Chen & Pajares, 2010; Duke, 2012; Metallidou, 2013; and Wang & Seepho, 2017).

Survey and interview showed that toward the end of the semester, students were relying mostly on extrinsic motivations to improve their access to self-study materials. Though they suggested more external rewards shall be given by the teacher, we argued that the disinterest was caused by students' perception change. Offering more rewards can actually lead to the over-justification effect. Online learning activities that initially felt fun for students transformed into work or obligations, when tied to in-class performance and overall grades in the module was probably the main reason caused the disinterest (cf Chang, 2011; Kwok, 2017; Wang & Seepho, 2017; interview with Student B, 2/3/2018; interview with Student D, 7/3/2018; and interview with Student F, 11/3/2018).

Accordingly, E. Ushioda & Z. Dornyei (2014), and other scholars, very recently suggested that motivation is determined by how learners relate learning and experience; in another word, to what they live in life (Dailey, 2009; Ushioda & Dornyei, 2014; Kwok, 2017; and Tseng, Lin & Chen, 2018).

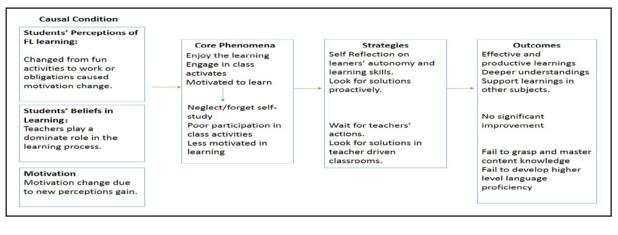


Figure 4: Model for a Flipped Foreign Language Chinese Classroom

Figure 4 demonstrates the model we drew up based on the findings in this study.

It was not confirmed in this study if students related the learning of Chinese to any practical benefits in life, such as better job prospects that language proficiency might bring about, but we can argue that a supportive teacher-student relationship in their experiences with the flipped classroom can greatly motivate them with the learning process (*cf* Kuhl, 2011; Sysoyev, 2014a; Kwok, 2017; and Tseng, Lin & Chen, 2018).

CONCLUSION¹

Learning a foreign language at the university from beginner's level is never easy, particularly when one is simultaneously studying other subjects. This study focused on the first attempt to flip a one semester's teaching of a foreign language Chinese module, examining pedagogical practice and learner adaptation to the flipped design.

Adopting a qualitative driven concurrent mixed method research approach, with the teaching staff and learners as coparticipants, this study reported that core phenomena in this flipped experience were students' diminishing accesses to self-study materials prior to face-to-face interactions in classes. Students' strategies toward the core phenomenon were two-faced. Though they were able to reflect on their self-learning skills and attitude, they would rely on the teacher to solve their problems in learning. When most of them were satisfied with the outcomes and flexibilities in the flipped classroom, they still believed the teacher should be the content knowledge presenter as they mostly prefer passive learning style.

One of the causal conditions for these phenomena was in students' beliefs of learning, teachers play a dominant role in the learning process. On the other hand, students' perceptions toward foreign language learning had changed through the study course. Consequently, this change resulted in motivating the students. When their perception toward watching videos and reading e-text books and other online activities transformed from fun activities into work or obligations, they felt less-motivated.

Based on this findings, we would not suggest more external awards to motivate students, but to review the student-teacher relationship in the flipped approach. It is incumbent to take account of students' individual learning trajectories by making use of a wide range of foreign language learning activities.

Bearing in mind that students' perceptions toward foreign language learning in terms of the difficulty of language learning, foreignlanguage aptitude, the nature of language learning, learning and communication

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strategies, motivation, and expectations were diverse and had been changing, we would suggest establishing a positive rapport with students as an immediate and effective approach to motivate students' self-learning; hence, to improve the effectiveness of a flipped design.²

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Learning the Mandarin (Chinese) Language in Brunei Darussalam (Source: <u>http://lc.ubd.edu.bn/news</u>, 5/1/2019)

Adopting a qualitative driven concurrent mixed method research approach, with the teaching staff and learners as coparticipants, this study reported that core phenomena in this flipped experience were students' diminishing accesses to self-study materials prior to face-to-face interactions in classes. Students' strategies toward the core phenomenon were two-faced. Though they were able to reflect on their self-learning skills and attitude, they would rely on the teacher to solve their problems in learning. When most of them were satisfied with the outcomes and flexibilities in the flipped classroom, they still believed the teacher should be the content knowledge presenter as they mostly prefer passive learning style.