Developing a FLIPPED-ACTION Model in a Language-Teaching Internship Program

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Abstract—With 69 participants taking a course titled Bilingual Education and Teaching in the Department of Teaching Chinese as a Second Language, this project introduces an empirical study which covers two 20-week class experiments under the monitoring of action research in 2015 and 2016. Surveys are administered to elicit the information about the relationships between the FLIPPED-ACTION implementation and the students’ reaction. Cross-analyzing the quantitative data serve as a reference for verifying the degree of effectiveness of course design and an indicator of learning outcome. The result shows that all the paths calculated by the statistic tool are significant (***0.001). The model supports all hypotheses. All features in the model positively affect each other, suggesting that each of the features plays an essential role in building the FLIPPED-ACTION course model which promotes the students’ skills employed in the internship.

Index Terms—flipped learning, curriculum design, educational technology, FLIPPED-ACTION course model, internship

I. INTRODUCTION

In the last 5 years, along with the advancement of technology, many educators who are interested in the idea of flipped classroom devoted themselves to experimenting with all kinds of flipped-learning models. Studies show that there are always one or a few particular challenging conditions when doing the experiments, such as underestimating the preparation of pre-recorded materials, lacking steps to maintain a seamless learning environment, or failing to keep students’ learning engagement. Like it or not, the idea of flipped classroom does not seem to be always promising, but it is not the time to ignore the idea yet. On the contrary, it is time to re-evaluate the idea by coming out more modified models [1], [2].

Up to this stage many instructors practice a variety of flipped-learning models mostly in elementary and secondary education, and increasingly in tertiary education. Their models are still under scrutiny for discussions [3]-[6]. Reference [5], [7] questioned whether the flipped-learning instruction can be applied in the context of higher education. They conducted research and concluded that a flipped-learning model can work efficiently when some components were implemented with modifications.

Reference [5] developed a FLIPPED framework to strength the original widely-promoted FLIP model proposed by Flipped Learning Network and Person’s Achievement Services. The model gives consideration to three important components that the original FLIP schema didn’t cover well: the efficiency of activity delivery, the engagement differences among learners, and whether or not the learning platforms were diversified enough. The FLIPPED model proposed by [5] provides a better common ground when talking about how to “flip” a class for university students, but it is a model still “staying in” a course-taking framework. All of the experimental steps mentioned in [5] are study-oriented, which means the students were required to study the materials in the FLIPPED style, but they had not been asked to apply what they learned in reality.

As a college instructor who teaches in a department setting off-campus internship as a graduate requirement, the author of this paper takes the FLIPPED model into a new FLIPPED-ACTION experiment to see if a flipped-learning model can be shifted from a study-oriented framework into a more application-oriented course design. The FLIPPED model implemented by [5] is for a graduate-level course titled “Computer Network and Internet”, and it is designed for those who have the computer-science background knowledge. It is a course encouraging students to learn whenever and wherever, but it did not set up any internship as part of the course fulfillment. In the case of this paper, the model is implemented in a language-teaching internship course, where the learning pattern tends to be more “in-service-training”-oriented. It involves more participation and interaction with reality.

Research and design-models for flipped learning in many subjects are available, such as those of Science, Math, English, Social Studies, and Marketing [4]. Reference [8] shows that flipped learning also can be an effective tool in programs for World Languages covering speaking skills and cultural activities, but for the subject of teacher-training is still insufficient. Furthermore, for a department of the humanities, which requires teaching demonstration, communicative competence, and oral presentation as internship-skills, a flipped-learning
review of this kind of training seems to have gone largely unexplored. Thus the purpose of this research is to develop a more specific model for internship-oriented type of courses. What the researcher does is to propose the FLIPPED-ACTION model to test if a flipped learning can articulate language-education with students’ internship-skills better.

II. REVIEW OF LITERATURE

A. Trends of Flipped Learning

Though the idea is not revolutionary, discussions regarding flipped learning, also known as “inverted classroom”, “reversed instruction”, or “flipped classroom”, have been gaining significant attraction around the world [9]. The ideological movement considers that a flipped classroom is a place where students are expected “to engage with primary material before class, and come prepared to delve more deeply into their meaning” (Ernest, 2014, p. 283) [10]. Reference [11] defined it as “Inverting the classroom means that events that have traditionally taken place inside the classroom now take place outside the classroom and vice versa” (Lage, Platt and Treglia, 2000, p. 32). Two of the features of the flipped classroom are problem-solving-based and active learning, and constructivism is considered the sources for the theories behind [12].

The Flipped Learning Network (2014) suggested that those who are interested in flipping their classrooms, they should incorporate the four pillars into their practices to engage in the flipped learning. The four pillars are: Flexible environment, Learning culture, Intentional content, and Professional educators [13]. Reference [5] and [6] questioned whether the flipped-learning instruction can be applied in the higher education context. Moreover, they echoed the previous studies done by many scholars in [9], [14], [15], that the FLIP model exists some inefficiency in terms of comprehensive research foundation, learning platform, and design guidelines. By adding three more components, which are: Progressive networking learning activities, Engaging and effective learning experiences, and Diversified and seamless learning platform, reference [5] thus developed a FLIPPED framework to strengthen the original FLIP model proposed by Flipped Learning Network and Person’s Achievement Services. Their study shows that applying the three modified components in the teaching process did gain more positive feedback from the adult students.

The flipped-learning approach is showing promise, it raises an awareness of viewing how modern education can be modified and moved forward [16]-[19]. However, educators worldwide still need more time to see whether it will really stay power. The implication behind the “more time” is more experiments about different subjects [5], [7], [20].

B. Educational Technology and Its Application

After decades of evolution, from programmed-learning emerging in the 80s, the internet in the 90s, open educational resources in 2001, social and participatory media in 2004, smart devices in 2007, to big data and learning analytics in 2012. Educational technology inspires us to rethink the teaching and learning identities in such a digital era [21], [22]. It is a must-discuss topic for those who look forward to teaching in next generation learning spaces [23]. One of the biggest changes brought by educational technology, according to reference [24], is that “the tremendous amount of authentic materials can be delivered to learners closely, and thus more ‘authentic instruction’ can be shared during the learning process” (Cennamo, Ross and Ertmer, 2014, pp. 58-60).

The key approach of educational technology should be focused on the relationship of co-producers between the instructor and the student [25], and when the approach functions well, the advantages of educational technology, according to reference [26], are first to promote the learning efficacy, and second, to build up knowledge through online social-networking. Combining e-learning and mobile-learning, the characteristic of educational technology is shown on its “just-in-time-learning as instruction”, which “can be delivered anywhere and at anytime through it”. Moreover, it is an aid to “formal and informal learning and thus holds enormous potential to transform the delivery of education and training” [27].

Recent studies incorporating educational technology with flipped learning models are quite trendy. Reference [28] examined how technology improved college students’ learning strategies in a foreign language flipped classroom. Reference [20] elaborated that technology delivered in a flipped classroom brought up issues at organizational and individual levels. Reference [29] suggests that a mobile technology-enhanced flipped classroom helps learners come up with more effective learning strategies. Reference [30] complies more than a dozen of authors’ studies to elaborate how digital technologies can strength flipped instructions in various language-learning courses.

C. The Essence of Practicum and Internship in Tertiary Education

Internship is a good way of training students when facing the real world. Students turn more matured after experiencing many relevant issues such as ethical and legal considerations, getting supervision, working with diversity, peer review, frustrations, stress, discoveries, and joy [31]. Internship involving practical training or service-learning is the most practical way to practice pedagogy and altruism [32]. Especially, living in an age when more and more students have their digital citizenship and start developing more and more negligence, blending internship into regular courses may help students gain a better picture in facing the reality [33], [34].

Successful internship support educators to apply empirical findings on learning in their practice, and help students incorporate knowledge with application to link established concepts to new situations [35].

More and more schools are normalizing it by setting it up as part of the graduation requirement for college students, and consequently more and more educators are
A new trend of education is experiential education, which focuses on how instructors guide learners to reflect on experience and apply what they have learned to the real world. The FLIPPED model proposed by reference [5] is well-interpreted by pointing out the importance of the “E” --- engaging and effective learning experience (see REVIEW OF LITERATURE section A), but the model and the whole experiment did not emphasize the quality of internship when using appropriately, and also suggests that social media can flip then bridge classroom instruction with internship, and in the mean time provide a platform for students to build their global portfolios. Reference [2] mentioned that the use of technology makes a flipped teacher-training program more efficient in encouraging collaborative teaching and learning.

III. METHODS AND PROCEDURES

A. Course Design

The author of this paper, who is also the researcher of this study, applied a flipped-learning approach as a pedagogical framework to support the basis of constructivism for the students who take Bilingual Education and Teaching, a class focusing on the introduction of Bilingual-Education theories, the development of the students’ bilingual proficiency, and the training in communicative competence, presentation skill, and teaching-demonstration skills. As a professional CSL and ESL instructor, the researcher provided quality English and Chinese to enhance the students’ proficiency levels in both languages. As to the training, it is designed for the sake of preparing the students to fulfill their internship required by the hosting school.

Regarding the ACTION part, it stands for “App-enriched learning, Communicative competence, Teaching-demonstration, Internship, Oral presentation, and Negotiation skill.” The relationship between the variables A, C, T, O, N and I is formed into two research questions as follows:

1) Is there any mutual influence among the variables in the FLIPPED-ACTION model?
2) Which variable(s) significantly affect the students’ internship performance?

B. Research Method

The statistical software SPSS Version 18 was used to analyze the relationships between the modified model and the completion of the ACTION modules based on ratings done by the students for their internship, and to analyze which component(s) make a significant influence on students’ learning motivation, learning strategies, and learning outcome.

Conducting the same class experiment twice in two semesters in 2015 and 2016 respectively, the researcher, who is also the instructor of the class, conducted surveys to collect the quantitative and the qualitative data, and conducted action research to support or inspect the data. In this paper, only the quantitative data is discussed.

The participants are 69 undergraduate students from the Department of Teaching Chinese as a Second Language, who took the course called Bilingual Education and Teaching. Among them, 44 students took the course in the fall semester 2015, and 25 students took the course in the fall semester 2016. All the enrolled students in the course are required to do their internships at a local elementary school located in New Taipei City, Taiwan. Based on the diverse backgrounds of the school kids, such as that of local-born, foreign-born, the New-Resident-born (“New Resident” in Taiwan is a term communication, etc. Based on each of the steps, the researcher observed how the students react and what they had performed.

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Regarding the FLIPPED part, besides the pre-recorded videos for course instruction and teaching materials, PowerPoint slides, articles, the related links as supplementary materials on the learning management system (in this case, MOODLE), the assigned apps also play critical roles in flipping the learning. Figure 2 shows how the 11-app flipped-learning package was formed in order to strengthen the FLIPPED-ACTION model, especially for the elements of “flexible environment” and “app-enriched learning”.

% Figure 2. The flipped learning package containing 11 apps
for describing those who are newly-arrived and plan to stay in Taiwan via marriage or work permit. Their children born in Taiwan are dubbed as New-Resident-born), and non-Taiwan-nationality, the interns’ main job is to teach the 1st-to-6th graders either Chinese or English in the day shift. Moreover, since the elementary offers the New Residents in the neighborhood a regular weekly evening remedial-Chinese-class, some of the interns were assigned to teach Chinese in the evening class.

The questionnaire is divided into 8 sub categories to elicit information regarding “flexible environment (F), learner-centered approach (L), intentional content delivery (I), professional educator (P), progressive activity (G), engaging experience (E), ACTION (A), and satisfaction (S)”. Each capital letter abbreviated in the parentheses above represents each construct in the data analysis. All the respondents were asked to answer the questions in a self-administered manner on a five-point Likert scale (5 is the highest and 1 is the lowest) with the range “strongly agree, agree, neutral, disagree, and strongly disagree.”

Seven hypotheses labeled as “H1, H2,….” are proposed to verify the effectiveness of the course design, and they are:

1) H1: The perception of I is expected to influence L positively.
2) H2: The perception of I is expected to influence G positively.
3) H3: The perception of P is expected to influence G positively.
4) H4: The perception of L is expected to influence E positively.
5) H5: The perception of F is expected to influence E positively.
6) H6: The perception of G is expected to influence E positively.
7) H7: The perception of E is expected to influence A positively.

IV. DATA ANALYSIS AND RESULTS

A. The Reliability and Validity of the Questionnaire

To verify the Reliability and Convergent Validity of the 49 close-ended items in the survey questionnaire, SPSS 18.0 was used as the analytical tool, and the verification of the measurement model was based on the following criteria:

1) For Reliability, the Cronbach’s Alpha Value is better to be larger than 0.7.
2) For Construct Validity, all indicators loading need to be greater than 0.7., and the Average Variance Extracted (AVE) of construct is better to be greater than 0.5.
3) For Discrimination Validity: Construct’s correlation should be lower than 0.85, and Cross Loading in group loading should be greater than between groups.

The results of internal consistency and discrimination validity show that all reflective constructs in the model are adequate. Table I shows the correlations between constructs, and Table II shows each construct’s mean, standard deviation, and Cronbach’s alpha.

B. The Path Analysis of the Questionnaire

The path analysis was used to explore the possible causal relations among the FLIPPED-ACTION constructs. Shown in Fig. 3, all the paths calculated by the statistic tool are significant (* 0.05,** 0.01, *** 0.001). The model supports all hypotheses. All features in the model positively affect each other, suggesting that IL (H1), IG (H2), PG (H3), LE (H4), FE (H5), GE (H6), and EA (H7) play essential roles in building the FLIPPED-ACTION course model.

The analysis reveals that in this course experiment the “intentional content” positively correlates with “learner-centered” approach (IL, p < 0.549) and “progressive activities” (IG, p < 0.549). It indicates that intentionally providing a course overview, syllabus, and detailed information about how to complete each assignment in advance fortifies the learner-center approach. Moreover, the progressive activities designed by the instructor, such as a step-by-step guideline, the weekly pre-recorded materials and links, and the assigned small group collaboration activities, explain how solid the intentional content can be. In addition, how well the activities were progressed also reflects how much the instructor got involved (PG, p < 0.743). In this class experiment, the instructor applied educational technology (e-learning and m-learning), social media (Facebook, LINE, Evernote), diverse assessment (e.g. oral presentation, written test, discuss forum, and internship), and specific scoring standard to reach the learning objectives. In the questionnaire, the average Likert-point of the question “The teacher applied multi-faceted assessment to evaluate the students” (4.03), and “The teacher provided clear scoring standards for tests and assignments” (4.01), can be viewed as indicators of this positive result.
The learner-centered approach and a variety of progressive activities explain the students engaged themselves in the learning process \((\text{LE}, p < 0.587; \text{and GE}, p < 0.876)\). Nevertheless, the engaging experiences among the students cannot be promoted well without a flexible learning environment. The positive correlation \((\text{FE}, p < 0.394)\) indicates that the flexible learning environment created in this class makes a direct impact on the students’ engaging experiences. Thanks to the modern technology, all the participants in the class can exchange and update information, and upload/download documents via the learning management platform and the assigned social media anytime and anywhere. The flexibility in the learning environment no doubt promotes the participation and interaction among the teacher, the teaching assistant, and the students.

Finally, the “engaging experience” positively correlates with the “ACTION” approach \((\text{EA}, p < 0.546)\), and it indicates that the students attribute their internship completion to their engagement levels in the class. They did follow the course instructions to cover the training for the internship, including that of app-learning, communication, teaching demonstration, oral presentation, and negotiation skill. The questionnaire shows that they agreed the course promoted their skills employed in the internship.

![Diagram](image_url)

Figure 3. The structure model of the survey variables (modified from Chen et al. 2014)

V. LIMITATION

Due to the small sample size of the survey, further investigations are expected to draw firmer conclusions. Moreover, due to the paper-submission restriction, what is presented in this paper is part of a mixed-method study combining both quantitative and qualitative data. The qualitative data making the whole interpretation better-rounded are not shown here. The results from the open-ended questions, interviews, and the instructor’s observations will be discussed in another paper, including how the students formed their groups activities, and how the students found the package is useful in terms of learning new materials, adjusting time management, conducting peer review, and collaborating tasks.

VI. CONCLUSION

The Ministry of Education in Taiwan has been promoting the policy of blending internship into curriculum, and the course experiment mentioned in this paper serves as a case. While connecting the on-campus learning as a student with the off-campus training as an intern, the FLIPPED-ACTION model provides a solution to help both teacher and students face considerable contents and workload.

One of the core principles of flipped learning is to focus on how face-to-face time is used for higher-order thinking skill. When students engage their learning through the FLIPPED part, more practices related to oral presentation and teaching demonstration can be initiated in a face-to-face environment. Moreover, when students engage their training through the ACTION part, they applied what they have learned in reality without being afraid of lacking sources from the course. In other words, constructing an app-enriched learning path boosts the students’ mobility, and makes the whole implementation more effective.

The author applies a firsthand instruction to inspect and verify teaching and learning of a newly-modified model. The positive relationship between the up-to-date course design and the college students’ learning behavior shown in this paper suggests that new course models are needed in the comprehensive universities in Taiwan.

Teaching at a department emphasizing bilingual education, the author noticed that more and more students wonder why and how they can apply their language-education major to those real-life situations.
While contributing a new flipped-learning model, this course experiment provides a good chance to fulfill the students’ expectations.

For Taiwan to remain competitive globally, teaching methods must be up to task to deliver skills efficiently and competently. This research enables academics and institutions to evaluate promising methods, master them, and adapt them to specific learning environments.

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REFERENCES


Yee-Chia Hu was born in Jia-Yi, Taiwan. While living in the United States for more than a decade, she got her master-degree at San Diego State University, majored in art education, and got her doctoral-degree at Texas A & M University, majored in bilingual education. She has been teaching Chinese and English for more than 16 years. She developed her teaching passion before she lived abroad and lasts to these days. Currently she is an assistant professor of Ming-Chuan University, Taiwan, teaching at both Department of Teaching Chinese as a Second Language and Department of Applied English. Her specialties are Second Language Acquisition, Bilingual Education, and Translation Studies. Prior to 2011, she translated 8 books from English to Chinese and published in Taiwan. In 2012, she was one of the co-authors of the book *Exploring the New Vision of Chinese-Education* (Chinese edition). In 2015 she teamed up with 5 other university professors to publish a book titled *Second Language Acquisition and Teaching* (Chinese edition).

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