# An Integrated Model of Flipped Classrooms and M-Learning in Workplace English

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**Abstract:** The Flipped Learning Model, an innovative model of instruction, was proposed to focus on student learning needs as the driver of instruction. To benefit from this emerging learning/teaching trend, several studies have examined the efficiency of flipping classrooms in terms of improving student performance and engagement. However, none of the previous studies have explored the viability of integrating M-Learning in flipped classrooms, especially in the discipline of workplace English. English language proficiency in the workplace continues to be a top concern among employers in Taiwan who have become increasingly dissatisfied with the English language standards of the university graduates they employ. The aim of the current study is to fill this gap by designing an integrated model for flipped classrooms and M-Learning in workplace English and to investigate the viability of the model. The participants are 48 college students enrolled in Workplace English course. Data collection consists of pre- and post-tests, questionnaire, and in-depth interviews. It is noted that this study is currently ongoing. The preliminary findings reveal that students had positive perceptions of the integrated model which enhanced their communicative competence. Based on the comparison of students' pre- and post- tests, it is found that the given technological resources helped students improve their English skills for workplace. In addition, those who were more engaged in the instructional design tended to have better improvement than those who were less active. More detailed description will be addressed upon the completion of the study.

**Keywords:** Flipped classrooms, mobile learning, workplace English, college students, Taiwan

## 1. Introduction

Technological advances have contributed to the changing face of education. The use of technology in school education has increasingly been the object of study in recent years. As technologies become widely available, alternative approaches are proposed to integrate technology into language learning. The Flipped Learning Model, an innovative model of instruction, was proposed to focus on student learning needs as the driver of instruction. In a flipped classroom, students watch online instructional videos before class, and devote class time to active and collaborative learning. To benefit from this emerging learning/teaching trend, several studies in various disciplines have examined the efficiency of flipping classrooms for improving student performance (Day & Foley, 2006; Deslauriers & Wieman, 2011) and student engagement (Clark, 2013). The findings indicate that students in the flipped environment have a significant increase in learning performance and engagement. Other studies have investigated how flipped classrooms could foster active learning (Hung, 2015) and critical thinking skills (Kong, 2014). It has been found that the students had a statistically significant growth in their learning outcomes and critical thinking skills.

Recently, several attempts have been made to understand the benefits of mobile learning (M-Learning) and mobile-assisted language learning (MALL). These studies demonstrate the potential of mobile devices and applications in enhancing language learning. In view of mobile learning's characteristics such as mobility, reachability, personalization, spontaneity, and ubiquity, and its promises for education (Saran & Seferoglu, 2012), integrating M-Learning in a flipped classroom may enhance student learning outcomes and learning motivation.

It should be noted, however, that none of the previous studies have explored the viability of integrating M-Learning in flipped classrooms, especially in the discipline of workplace English.

Employers in Taiwan have become increasingly dissatisfied with the English language standards of the university graduates they employ. As the Educational Testing Service's (ETS) Taiwan office pointed out in a 2012 survey, 95.9% of Taiwan's top 1,000 companies state that employees need to use English in their jobs, but only 2.4% of them are satisfied with the English communication skills of their employees. Obviously, issues regarding the teaching of English for Specific Business Purposes (ESBP) demand immediate attention. English as a foreign language (EFL) teachers must be creative in identifying and maximizing opportunities for practical training and linguistic expression in workplace settings.

Flipped classrooms and M-Learning might provide solutions for the lack of actual training and preparation for using English in the workplace, particularly when working with students who face additional adversities, such as low motivation and English proficiency. Therefore, this paper aims to investigate the possibilities of integrating M-Learning in a flipped classroom in a college EFL Workplace English course in Taiwan. The following research questions guided this study:

(1) How does the integrated model of flipped classrooms and M-Learning influence students' English skills for workplace?
(2) What are the students' perceptions of the integrated model?

## 2. Background

### 2.1 Flipped Classrooms

The Flipped Learning Network and Pearson's School Achievement Services (2013) identified the four key features, or pillars, of flipped classrooms. The four pillars of F-L-I-P™ are Flexible Environment, Learning Culture, Intentional Content, and Professional Educator. They maintain that the environment of a flipped classroom has to be flexible, allowing students to choose when and where they learn. Additionally, teachers who adopt the flipped classroom framework will shift the learning culture from teacher-centered to student-centered. Finally, to allow flipped learning to occur, intentional content and professional educators are necessary in order to help students gain conceptual understanding and procedural fluency (Hamdan, 2013). Addressing the deficiencies in the four pillars of F-L-I-P™, Chen, Wang, Kinshuk, and Chen (2014) proposed the "FLIPPED" model. Three additional components were added in order to better suit a higher education context: Progressive Networking Activities, Engaging and Effective Learning Experiences, and Diversified and Seamless Learning Platforms. They have proved the proposed model to be effective.

Researchers have put efforts into empirical studies in an attempt to implement the flipped learning model in school education. For example, Clark (2013) have conducted related empirical studies with students in K-12; whereas Day and Foley (2006), Deslauriers and Wieman (2011) and McLaughlin et al. (2014) have conducted empirical studies in higher education. These researchers such as Day and Foley (2006) have compared student performance and perceptions in traditional and flipped college courses over a semester. Day and Foley (2006) flipped a Human-Computer Interaction course where students watched online video lectures outside of class and spent time engaged in hands-on learning activities such as group discussions, presentations, and design critiques during the remaining class meetings. Compared to students in a traditional lecture course, Day and Foley (2006) found that students in the flipped course performed significantly better on the semester project and final grades. It was also found that the students were generally satisfied with the format. In the empirical studies by Deslauriers and Wieman (2011) and McLaughlin et al. (2014), student performance in flipped classes with that of students taught using a traditional approach the year before was compared. The findings suggested that the flipped learning model had a positive impact on student learning. These past studies found that the flipped classroom can, in general, lead to a significant increase in learning effectiveness at both basic and higher education levels.

As mentioned earlier, the flipped learning model has been implemented in elementary, high school, and college levels in various disciplines such as math (Clark, 2013), pharmacy (McLaughlin et al., 2014)), physics (Deslauriers & Wieman, 2011), and more. However, the flipped model is still underutilized and underexplored in the discipline of English for Specific Business Purposes (ESBP).

## 2.2 Mobile-assisted language learning (MALL)

Mobile learning (M-Learning) is defined as the acquisition of knowledge with the aid of any service or facility regardless of time and space (Lehner & Nosekabel, 2002). The utilization of M-Learning has gained importance in the field of English language teaching. One of the devices used in mobile learning is the smart phone which has great potential for educational purposes. Common features of a smart phone include the short messaging service (SMS), the multimedia messaging service (MMS), Internet access, cameras, bluetooth, etc. An increasing number of young users in Taiwan are communicating with each other through mobile messaging applications, such as Whatsapp, LINE, Viber, and WeChat. Some scholars have pointed out the prominent roles of mobile messaging services in learning environments. For instance, Saran and Seferoglu (2010) examined students' opinions of using MMS via mobile phones to learn English vocabulary. They found that the students were motivated in the educational settings and were able to make use of their previously wasted time (on the bus or waiting for something/someone) for learning English vocabulary.

Currently, LINE is one of the most popular MMS applications among young students in Taiwan. Launched in Japan in 2011, LINE is an app for instant messaging on smart phones and PCs. LINE is more of a social entertainment network, in addition to a messaging app. It provides free voice calls, instant text messages, games, and a built-in camera. The cartoon characters and stickers serve as emoticons to make communication more interesting. It has become the most popular mobile messenger app in Taiwan, according to the market research of InsightXplorer Limited, as of May 2013. The official website of LINE pointed out that, as at the end of November 2013, the app had 300 million users worldwide; Taiwanese users of LINE had reached 17 million, second only to Japan (50 million) and Thailand (20 million), and most of the registered users are the younger generation. Due to the popularity of LINE, it is hoped that such technology can be leveraged to support English language learning.

## 3   Method

### 3.1  The Research Site and Participants

This study is conducted at a university located in northern Taiwan. The participants involved in the study are 48 students who enrolled in Workplace English course. The 18-week course is a required course with two credits for non-English majors and is scheduled two class hours per week.

### 3.2  Instructional Design

#### 3.2.1   Phase 1: Online video lectures

Each week, before introducing a new lesson, the students watch a self-developed online instructional video prior the class. The self-made videos introduce the meanings and usage of useful vocabulary and language expressions of a chosen topic in workplace settings. The main goal is to guide students to gain knowledge of the content to be introduced in the form of self-study via E-learning.

#### 3.2.2   Phase 2: Online communication via LINE

After viewing the video, the students are assigned a task to assess their understanding of the video lecture. The participants pair up and establish a personal LINE group with their respective partners. The researcher join the participants' LINE groups to monitor the progress and to give feedback. The participants complete the task through LINE with a partner. Timely feedback are given by the instructor. This practice help the students reinforce what they have learned in the video lectures as well as helping the instructor evaluate their engagement and comprehension of the lectures.

#### 3.2.3   Phase 3: In-class activities

When students are in class, they already have a basic understanding of the topic to be introduced. Therefore, the instructor can shift from teacher-driven instruction to student-centered learning. That is,

the students can have more practice, interaction and individual attention in class. The purpose of the in-class activities is to maximize learning efficiency through cooperative and active learning. Table 1 demonstrates details of the three phases of the flipped classroom design in the workplace English class.

Table 1: The Flipped Classroom Design in the Workplace English Course

| Phase | Approach | Goal | Channel |
|---|---|---|---|
| Phase 1 (Online video lectures) | Self-study via E-Learning  | Knowledge acquisition | Recorded video lectures |
| Phase 2 (Online communication) | Peer-collaborative M-Learning  | Assessment and reinforcement of knowledge gained in video lectures | Mobile apps: LINE (dialogue making; problem-solving; discussions; timely teacher feedback) |
| Phase 3 (In-class activities) | Face-to-face interaction  | Maximum learning efficiency through cooperative and active learning | Role-play; games; group discussions; presentations; teacher feedback; reflection |

## 3.2  Design of Experiment

This study applies a mixed-method research design to the investigation. Specifically, the pre- and post-test, survey design and interview methodology are employed to quantitatively and qualitatively understand college students' experiences and challenges encountered in the flipped classrooms. The experiment is implemented in the Workplace English course of freshmen. The duration is about two months. Data collection consists of three sources: pre- and post-test, questionnaire, and in-depth interview. The quantitative data will be processed with the statistical software, Statistical Package for Social Science (SPSS), including descriptive statistics, t-test, and correlation. In addition, content analysis will be utilized to analyze qualitative data. Students' interview transcripts and responses to the open-ended questions will be analyzed using category construction (Erlandson et al., 1993) to code the data into emergent categories.

## 4    Preliminary Findings

As mentioned, this study is currently ongoing. The preliminary findings indicate that the students, overall had positive perceptions of the integrated model of flipped classrooms and M-Learning; many

of them reported that the designed activities helped foster their English communicative competence for workplace.  Based on the comparison of students' pre- and post- tests, it is found that the given technological resources helped students improve their English skills for workplace. In addition, those who were more engaged in the instructional design tended to have better improvement than those who were less active. More detailed description will be addressed upon the completion of the study.

## 5    Conclusion

The self-developed instructional design can provide a set of guidelines, directions, and activities for instructors who intend to develop flipped classrooms and LINE-based learning materials for EFL instruction in workplace English. It is hoped that administrators and educators may be able to redesign their English programs and facilities to improve them and to meet the learners' needs as well.

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