

# THE APPLICATION OF FLIPPED LEARNING APPROACH TO TEACH ENGLISH FOR SPECIFIC PURPOSES (ESP) OF NURSING

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**Abstract:** Teaching English for Specific Purposes (ESP) of Nursing via the Flipped Classroom has evolved into an undeniable popular pedagogy, driven by the momentum of many English teachers of nursing across the world that have embraced the idea. These passionate educators are making a meaningful difference in how students learn, and enhancing learning outcomes in the process. This evolution has also been made possible because of the unprecedented capabilities of modern digital technology, the Internet, the World Wide Web and E-learning Moodle. Upon this framework, an ever-expanding array of powerful software has been made available. Furthermore, in the current decade, mobile technologies like tablets and smartphones have fundamentally altered the ease and convenience with which students and teachers can access digital content. This paper investigates the efficiency of the application of the Flipped Classroom pedagogy in an English for Specific Purposes of Nursing class by analyzing the findings of the presented literature review regarding the Flipped Classroom pedagogy, examining the benefits of this strategy, demonstrating the author's qualitative reflections based on personal pedagogical experience which will suggest ways to implement the FC pedagogy in an ESP module of Nursing and finally the paper will examine the challenges that may be faced and ways to overcome them.

**Keywords:** Flipped Classroom, Technology, Active Learning, Creativity.

## 1. Introduction

Teaching English for Specific Purposes (ESP) of Nursing to undergraduate nursing students in universities where English is the language of instruction is of paramount importance to these students, as not mastering academic English will be a hindrance in their ability to study in their vocational areas, so mastering the English language prepares students to meet the demands of their faculties. With today's millennial students who belong to the virtual world, using a pedagogy that is tailored to their interest is essential for its success, as embracing digital learning is

what may engage the 21<sup>st</sup> century students. Trucano (2005) asserted that Information and Communication Technologies empowers both teachers and learners making the classroom student-centered and not teacher-centered. Moreover, the quality of graduates nowadays needs to be enhanced, as they cannot be just vessels to be filled with information from the teacher, but they should be able to analyze information and conduct research. As Evseeva (2015) observed there is a "transition from "education for life" to "lifelong learning" which is understood as

continuous and self-motivated search of knowledge for different purposes either professional or personal.” Thus, there was a need for a new teaching pedagogy that changes the role of the teacher from a knowledge disseminator to a learner coach and helper.

The Flipped Classroom approach appeared in the year 2000 by Lage, Platt and Teglia and then has been developed and made popular by two high school chemistry teachers Jonathan Bergmann and Aaron Sams (2012) who first used it to overcome the need to give after school help to student athletes to be able to grasp what they missed while they were absent attending competitions. It was started in the Fall Semester (2015) at the British University in Egypt when the Head of the English Department Professor Shadia Fahim suggested piloting this new pedagogy to enhance students’ learning. Strayer (2012) stated that students in this Flipped mode are introduced to course content outside the classroom and then engage in content at a deeper level inside the classroom, as “interactive technologies made it possible for educators to qualitatively reconceptualise the teaching and learning dynamic.” In other words, this Flipped Classroom approach inverts the traditional lecture mode classroom by having students learn course content outside class while freeing class time for hands on activities,

engagement in active learning using higher order thinking tasks (application, analysis and synthesis) and clearing misconceptions via discussing major issues with teacher and peers.

The aim of this paper is to evaluate the effectiveness of the implementation of the Flipped Classroom pedagogy in English for Specific Purposes of Nursing class at Nahdlatul Ulama University of Surabaya, Indonesia. It will start with a literature review of the previous studies on the Flipped Classroom approach; then, it will illustrate the research methodology used; next, it will discuss the benefits of this pedagogy; afterwards, the paper will demonstrate guidance and recommendation for a Flipped Classroom application based on the author’s personal experience; and finally, it will examine the challenges that may be faced and ways to overcome them.

### **Literature Review**

Many research studies have been conducted on the efficiency of the Flipped Classroom pedagogy. O’Flaherty and Philips (2015) conducted a scoping review and their results indicated that the Flipped mode of learning leads to students’ improved academic performance, increased satisfaction of teachers and students and the development of lifelong learning abilities together with other 21<sup>st</sup> Century skills.

Moreover, Roach (2014) implemented this approach on a partially FC microeconomic course over one semester and recorded students' perception regarding this FC pedagogy and the results showed that they were in favor of this pedagogy and that the instructional design is beneficial across student groups. Similarly, Elliot (2014) analyzed using a survey and reflective statements a FC sophomore – level information technology course and his results indicate that at the beginning of the course the students were just receptive of the concept of the FC; however, by the end of the course there was significant satisfaction with this FC pedagogy. Furthermore, Gilboy et al. (2014) conducted the FC pedagogy on two undergraduate nutrition classes and the majority of the 142 students in the results of an evaluation survey was pleased with this new mode of learning and preferred it to the traditional pedagogy. He asserted the success of this education strategy for both students and instructors. Moreover, Evseeva and Solozhenko (2015) implemented this approach in a language class and the results were that students' motivation developed and their academic performance was enhanced. In addition, Hung (2016) conducted a study on English Language learners using the FC pedagogy and the results indicated improved learning outcomes and increase in student

satisfaction and participation in the learning process. Furthermore, Tally (2013) used the FC mode with undergraduate psychology students and the results demonstrated an increase in the students' final grades which shows the positive effect of the FC strategy on their academic performance.

Several other research studies have been conducted to test the efficiency of the FC strategy and their results are promising (Butt 2014; Davies et al., 2013; DeGrazia et al., 2012; Findlay-Thomson & Mombouquette, 2014; Mason et al, 2013; McLaughlin et al., 2013; Tune et al., 2013; Wagner et al., 2013). In this FC mode of learning students were better prepared for class (DeGrazia et al., 2012; McLaughlin et al., 2013); were more engaged, enthusiastic and motivated (Butt, 2014; Davies et al, 2013; McLaughline et al, 2013; Wagner et al, 2013), scored higher grades (Mason et al., 2013; Tune et al., 2013); were more eager for cooperative learning (Strayer, 2012); became personalized learners (Bergmann & Sams, 2012; Davies et al., 2013) and proficiently adopted problem-solving skills (Mason et al., 2013). On the other hand, only a few studies had different results. Fassbinder et al. (2014) conducted an experiment using this FC strategy and the results indicated that the participants were at first motivated and engaged, but eventually this diminished, as students found difficulty in creating patterns of

regular study and needed instructors to send them messages to persuade them to complete their flipped pre-classroom tasks. In addition, Al Zahrani (2015) implemented the FC approach and his findings indicate that this approach may “promote students’ creativity especially with regard to fluency, flexibility and novelty.” However, students faced various difficulties because they were not well prepared for this change in the learning strategy. Moreover, Strayer (2012) conducted a study using the Flipped approach in an introductory statistics university course, but students were not content with the structure of presenting course tasks in the FC mode, but this pedagogy enhanced their cooperation, innovation and task orientation. Furthermore, Atteberry (2013) conducted a 3-year study at a Harvey Mudd College and the preliminary data suggested that there was no difference in students’ outcomes.

### **Research Methodology**

This paper will further investigate the efficiency of the application of the FC pedagogy in an English for Specific Purposes of Nursing class by the analysis of the findings of the above literature review of the FC pedagogy, examination of the benefits of this strategy, the author’s qualitative reflections based on personal pedagogical experience which will suggest

ways to implement the FC pedagogy in an ESP module of nursing and finally it will examine the challenges that may be faced and ways to overcome them. According to the aim of this study the research objectives are as follows:

To evaluate the effectiveness of the Flipped Classroom approach in an English for Academic Purposes module.

To demonstrate recommendations and guidance for implementation of this Flipped Classroom pedagogy based on actual experience. To examine the challenges that may face educators in application of the Flipped Classroom approach. Advantages of the Flipped Classroom approach.

There are various advantages of the FC approach. Firstly, it allows students to be exposed to the Constructivist (in- class) and the behaviorist (outside the class) principles of learning (Hawks, 2014). This is because students outside class get the foundational accredited content that is required in the behaviorist learning theory which should include lectures, tutorials and drills which are all teacher controlled (Hawks, 2014). On the other hand, the Constructivist learning principle is based on cascading on the students’ previous knowledge and their taking responsibility for their own learning so that a teacher is no longer as King (1993) described a ‘sage on the stage’, but he/she becomes a ‘guide on the side’.

Other learning theories that the FC pedagogy builds on as Lowell and Verleger (2013) maintained include student-centered learning, problem-based learning and peer-assisted learning (as cited in Elliot, 2014). Secondly, FC strategy allows students to access content 24/7 allowing them to learn new concepts on their own time. In the traditional class some students would be too shy to stop the teacher if he/she is going too fast, but in the FC mode students can pause and rewind the video until they master content (Bergmann and Sams, 2012). Moreover, if a student registered late, he/she can view the videos and be able to follow up with the rest of the class or in cases when students are sick or are unable to attend class for one reason or the other, they could easily grasp the course content from the videos and material that they have at their fingertips on e-learning. Thirdly, teachers could easily monitor students' progress from the e-learning dashboard which will show the questions that most students were unable to answer correctly which will enable teachers to identify the knowledge gap that needs more clarification, so that they could address these problems and misconceptions in class via hands-on activities and thus students' incorrect notions are alleviated. Fourthly, class time is spent in engaging in content at a deeper level, thus creating "learning connected communities" (Garrison and

Kanuka , 2004; So and Brush, 2008). In other words, in class students will be involved in applying the content they learned before class via active learning tasks that include as Davis (2013) stated "collaborative activities and peer learning, which is reflective of how the systems analysis and design process is conducted in a real world environment"( as cited in Elliot, 2014). That is to say, students in class are involved in critical thinking, discussion, problem-solving, communication and feedback which are all key vital competencies needed in the actual world especially in the workplace. These in-class activities should allow students to use their higher-order thinking skills that were mentioned in Bloom's Taxonomy (1984) which include analysis, synthesis, evaluation and creation. Fifthly, the FC pedagogy gives students ownership of their learning as the onus of learning is placed on the students. This occurs in the FC mode of learning because "marrying the technological tools and asynchronous content delivery used in a [FC] with a student directed approach to deciding what is learned can create an environment in which curiosity thrives"( Bergmann and Sams, 2012). This environment empowers students, as they are responsible for their learning which gives them a driving intrinsic force to learn, as this is not an extrinsic outside enforced power placed by

their teachers who are no longer the center of the class, but are just facilitators helping students retain their knowledge, monitoring students' progress, boosting their confidence, maintaining their motivation and giving them feedback (Marsh, 2012). This new teacher role should be clearly explained to instructors before they start using this new strategy. Sixthly, the on-line and in-class discussions and forums that the students participate in, lead to the development of their speaking skills which helps them in mastering the language (Evseeva and Solozhenko, 2015). Last but not least, the FC pedagogy addresses students' differentiation with regards to language competence, learning style, language learning pace, as they will differ in their ability to grasp the content material of the module and also in fulfilling

assignments. Therefore, the FC mode will give students the “opportunities to choose the tempo, speed and the volume of the content that they need to study” (Evseeva and Solozhenko, 2015). All the above mentioned advantages motivated universities and schools to adopt this FC mode.

#### Implementation of a Flipped Classroom in English for Specific Purposes of Nursing Module

Before examining the implementation of the FC pedagogy in an ESP module of Nursing, it is essential to compare between the traditional classroom and the FC which could be perceived in the following chart:

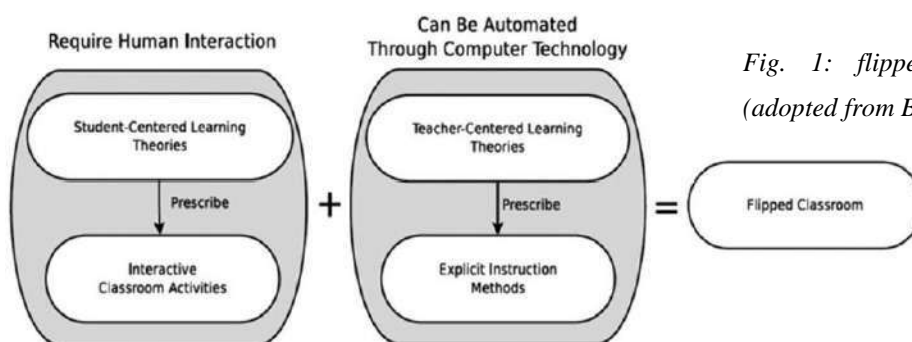


Fig. 1: flipped classroom activities (adopted from Bishop & Verleger, 2013)

As is perceived in the above chart the FC method is a student-centered learning theory that advocates interactive classroom activities which include practical activities based on active learning. Bonwell and Eison (1991) asserted that active learning occurs when students are provided with

‘instructional activities’ where they are involved “in doing things and thinking about what they are doing.” In other words, class time is dedicated for review, assessing students’ level of retention and understanding of the course material rather than having the teacher repeat the lecture

content in class as in the traditional mode of teaching where the teacher-centred theory is applied. The traditional mode as is illustrated above prescribes explicit instruction methods that take place in class and at home students work on their assignments which usually are difficult for weak students who are unable to follow the teacher in class and therefore fail to do them at home. The FC mode solves this problem because weak students could watch the videos or read the assigned material more than once and the assignments are attempted in class with the help of the teacher who explains difficult concepts that some of these students may be in need of.

The Flipped Classroom pedagogy could be implemented in an English for Specific Purposes Module as follows:

### **Pre-Class Tasks**

Two videos or screencasts: Each video/screencast is 10-15 minutes long to minimize student boredom and distractions. These videos could be either selected from YouTubeEDU or created via Screenomatic if the available videos are not properly designed to fit the module's intended learning objectives. A short self-practice interactive quiz following each video comprising true or false, multiple choice or fill-in-the blank questions. These questions are simple, as students are able to answer, if they understand the content of the video. The video and quiz are uploaded on e-

learning and students can attempt them many times and get immediate feedback about questions that are incorrectly answered. These quizzes are not graded to erase the fear of penalty, as students do not lose marks if they make mistakes; however, they are considered part of the students' attendance. Teachers can monitor students' answers to identify problems before the class. When some of the students do not watch the videos or attempt the follow-up quizzes, they are sent warning e-mails to persuade them to do so, or else they are barred from submitting their final assessments. Students are asked to take notes while watching the videos and to write questions to bring to class for discussion. This is an important component of the FC pedagogy because in the third semester that this strategy was piloted at the Nahdlatul Ulama University of Surabaya, Indonesia, some students when asked a question about the pre-class videos mentioned that they forgot the content that they watched because they were not requested to take notes or write short summaries and bring them to class. Rath (2014) advocates the WSQ framework which stands for Watch, Summarize and Question. This framework if embraced by students will enable them to underpin their academic proficiency and achieve their full potential.

A book chapter or evidence-based journal article: these are varied in their

complexity and students are asked to read them to expand upon the content of the recorded videos.

English Word of Nursing term List activities: students are requested to attempt these interactive exercises to expand their nursing vocabulary. They are also requested to use the English Word of Nursing term that they learn in their writing assessments.

### **In-Class Tasks**

Question and answer discussion (10-15 minutes): this takes place at the start of each class to verify that students have watched the videos and read the required material. Students must have their questions and notes to participate in the discussion. Students sit in groups and discuss together the questions that they have with them. Teacher monitors and then a whole class discussion is conducted to answer students' difficult problematic questions.

In-class formative quiz (10-15 minutes): this is usually designed using Socrative as students attempt these quizzes using their mobile phones and teachers get an access point to enable students to access the internet via Wi-Fi. The Socrative quizzes are interactive and are marked automatically, so teachers receive the students' grades in class on the screen. These quizzes are designed to test the students' knowledge retention of the material that they acquired before class.

These quizzes are graded because as Toto (2009) asserted that students need the 'carrot and stick approach' to persuade them to consume the course material before class when they know that they will be graded on whether or not they have attempted these pre-class tasks.

Think-pair-share exercise (15 minutes): this includes a discussion of a problem that students try to solve first individually and then they share the solution with their pair.

Group-work hands on activity (30 minutes): this is designed to engage students to collaborate together in a group activity to practice and apply the content that they acquired before class. The activity should require higher order thinking skills of synthesis, evaluation and analysis.

Group presentations (10 minutes): this was piloted to allow students to give a two minute mini-presentation about one of the difficulties that they face when giving a presentation. They have to research the matter and take part in a forum discussion prior to their presentation. Teacher monitors and gives feedback to allow students to be better prepared for their Final Presentation.

### **After-Class Tasks**

Research article (summative assessment): This is a problem solution essay in which students analyze the causes and effects of a problem, evaluate previous



solutions and persuade the reader with their best solution. This is undertaken in a Web Quest. Hung (2015) argues that structuring the Web Quest in five essential elements namely, Introduction, Process, Task, Evaluation, and Conclusion “is an effective active learning strategy for flip teaching.” The students must use the new nursing vocabulary that they developed.

**Journal article review:** Students use the academic vocabulary that they acquired from the English Word of Nursing List in reviewing and critiquing a journal article focusing on current course content and to demonstrate that they have reached the intended learning objectives of the module.

**Presentation Forums:** This is where students discuss solutions to the problems they face while giving presentations.

**Discussion Board:** This is where students post questions to their teacher or to their peers to help them if they find difficulty while watching the videos or reading the posted material.

**Recorded video at the end of the semester:** Each student records a video of himself teaching the intended learning objectives that he acquired in this module to an imaginary class (Tally, 2013). The teacher watches the video and gives feedback to the student on parts that need to be reviewed or omitted due to misunderstandings or misconceptions. In order for the student to record this video

he/she should have understood and interpreted the course material and reached the intended learning objectives to be able to generate narration in his/her video for example the topic is about injection. The students should create role play video about it with partner.

The above tasks were divided evenly throughout the 13 week semester to avoid unnecessary overload or busywork for the students who had other projects and quizzes in their faculties. It is important to highlight that the above tasks should be carefully prepared so that they are all aligned together to have a synergistic effect in which the whole is greater than the combined parts and that they all work together to help students achieve the intended learning objectives of the module by the end of the semester.

### **Results and findings**

To find students’ opinions regarding the FC strategy, an end of semester Forum was conducted and the following questions were asked:

What did you like about this semester?

What did you not like at all?

How did you feel about the online classes?

Did you like getting the lectures at home?

What do you think could be done to make the experience more enjoyable?

The majority of the students’ responses were positive regarding their satisfaction

with the Flipped Learning Classes as seen in the following feedback of some of the students:

Positive points of this module: first, the online classes are providing me more skills and experience which improve the face to face classes. Second, the technique of teaching as a very active teacher in the class by using diverse teaching methods to make the class motivating for us.

This English level was the most level I did benefit and learned from. I liked how we learned in class by doing activities. I enjoyed how the lecturer made us learn many things in the same time without getting bored in class.

Online classes are better because quizzes can be done at any time students are free in. Also to learn lectures and be prepared before class is a good way to learn.

The flipped classroom is really beneficial as it is a reference for me to check whether I am working on the right track or not.

The things that I do liked this semester the online classes were effective and easy to be understood.

What I liked in the course, first, your way of teaching as a very active teacher in the class by using different teaching methods to make the class interesting for us. Second, the online classes are providing me more skills and information which enhance the face to face classes.

## **Challenges that Face the Flipped Classroom**

Some students do not have internet access. In this case teachers should burn the videos or screencasts on DVDs or save them on a flash pen and prepare copies as a plan B for such students to avoid creating a divide between students who have and do not have internet.

Flipping the classroom can never guarantee that students will watch the pre-class videos or read the pre-class material. However, if attendance or grades are linked with these pre-class tasks, students will definitely attempt them eagerly to get the grades. It is important to point out here that grades should not be spurious and awarded for just submitting an assessment or attempting a quiz, but should be based on the quality of the students' work.

Some students do not like to go on-line or work in groups because they prefer to work alone. This could be overcome if students understand the rationale behind the decision to use the FC mode of teaching. At the beginning of the semester when this new FC strategy was piloted at the Nahdlatul University of Surabaya, Indonesia, a role play video was developed to explain to the students this new teaching approach. It was very beneficial as it clearly described the FC strategy, the student role and the teachers' role as well.

Course tools and materials are sometimes not sufficiently or properly prepared. It is therefore imperative to prepare “effective teaching and learning activities to ensure the students’ proficiency and engagement, which in turn, may aid the promotion of creativity (Al-Zahrani, 2015). A suggested tool to do so is to have teachers use the Felder-Soloman Index of Learning Styles questionnaire which will enable them to identify the students’ learning styles according to the following four scales: visual/verbal, sensing/intuitive, active/reflective, and sequential/global, which will help them to decide which material to use while preparing for the material for the module.

### Conclusion

The FC strategy has been widely used in universities to increase students’ performance, enhance their engagement, improve their problem-solving techniques, and develop their collaboration abilities and foster student-teacher and student-student interaction. This paper has endeavored to add to the literature of the FC pedagogy in its analysis of the efficiency of the FC mode of teaching in English for ESP Nursing class. Future research is needed to test its effectiveness when used in other modules that do not include languages.

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