Scaffolding to Equip Taiwanese Medical Students with Fundamental Skills for Spoken English

Hsing-I Lin
Assistant Professor, Department of Applied English, I-shou University, Taiwan

Abstract:
This qualitative study aimed to investigate if a flipped classroom, activity-based approach could help equip tertiary Taiwanese medical students with fundamental English conversation abilities to prepare them for their future career. Relying on Vygotskian sociocultural conceptual framework, learning to accomplish an activity with scaffolding can help one internalize or acquire the targeted language skills, required to achieve fluent spoken English abilities. The participants of this research were twenty-two freshman medical students from the required freshman English conversation class at a university in southern Taiwan. The data sets included (1) pre-course questionnaire, (2) journal writing, (3) scripts of two informed speech, (4) two oral reports, (5) semi-structured interviews, and (6) field notes based on class observations. To cope with the common problems, found in today's classroom in Taiwan, from students' increasing range of individual differences, inactive students, time limit, frequent large class size, and limited opportunities for students to practice the targeted language skills, the findings suggested that this flipped classroom, strategy-based approach provided students obvious assistance to accomplish informed speeches.

Keywords: Academic writing, ESL writing needs analysis, coping strategies, English for academic purposes

1. Introduction
Taiwanese is an export-oriented country, so English proficiency is one of the required abilities for professional positions (Tsai, 2009; Spence & Liu, 2013). Within the past two decades, Taiwan's educational reforms have triggered a paradigm shift in teaching, from knowledge-transmission to knowledge-transformation in order to better prepare Taiwan's future specialists or workers in most, if not all, professions. Nowadays, English is the major international medium which professionals need to communicate for a wide variety of purposes, so, outstanding English proficiency is essential for academic or future professional purposes.

With challenges for higher education in Taiwan, including those from the pandemic of Covid19, this college, with the aim to be an international comprehensive higher education instituted, intends to equip students with required skills for pragmatic and innovative professionals. English proficiency is one of the essential skills, our students need to achieve, if not yet. This school has planned, within five years, step by step, English will be the only instructional medium in most of the courses. Understanding information in English is one of the important skills, especially for professionals, for numerous occupational purposes. However, more than enough of our students, including those who have met the graduation threshold in terms of English proficiency level, need to upgrade their spoken English for their academic and future professional purposes.

After teaching tertiary English courses more than a decade, I need to lament that more than enough students, to prepare them for future professions, have problems understanding the information they access via listening and expressing themselves for everyday and academic purposes. Due to institutional constraints from having as many as fifty students in one class, class time has been too limited for students to practice essential listening and speaking skills. And increasing range of students' English proficiency levels is another frequent constraint for college English speaking classes. Yet, globalization and this pandemic Covid19 has only increased the importance of acquiring English as an international medium for occupational purposes. This college has planned to adopt English as a medium of instruction (EMI) within most classrooms in five years. Unlike Singapore, Taiwan has rather limited opportunities for us to use English as a tool for communication; therefore, spoken English can play a promising role in offering EFL students 'abundant' language contact to start their journey of learning to use English to access information and possibly more later.

2. Review of Relevant Literature

2.1. English as a Cultural Tool for Communication
Language 'constitutes the most important content and the most important instrument of socialization' (Berger and Luckmann, 1967, p. 133, quoted in Casannave, 1993, p. 150). Language, thought, and culture are inseparable; without languages, communication among humans would not be highly impossible. Culture is dynamic, not static, constantly changing, so are our languages and habitual ways of thinking. The Sapir-Whorh hypothesis of linguistic relativism and
determinism suggests that different languages affect perception and thought in different ways. Kaplan (1966), echoing this Whorfian view, claims that not only language but writing is culture-specific, not universal and varies from time to time. Matalene (1985) states that English rhetorical values emphasize originality and individuality, the so-called authentic voice, encouraging self-expression and stylistic innovation. English native speakers subscribe to Aristotle's dictum, 'State your argument and prove it,' as shown in English speeches.

2.2. Paradigm Shift in Teaching and Learning

The shifts of the studies in psychology, from behaviorism to maturationalism and from maturationalism to social constructivism, have redefined teaching and learning. Behaviorists believe in knowledge transmission, which is a result of reinforcement, practice, and external motivation (Fosnot, 1996, p. 8). The curriculum is relatively linear and skills-based, assuming that learning can occur through careful observations, listening to teachers’ explanations and engaging in decontextualized exercises. Teachers are the only authoritarians, responsible for modeling, demonstrating and reinforcing targeted knowledge transmission, and learners are quiet and passive followers, listeners, and observers. The design of this skills-based curriculum is based on a sequence, dividing the direct instruction of predetermined knowledge, from easy to more complex, due to the belief that before introducing more advanced materials, students need to be trained to learn the prerequisite skills.

Maturationism emphasizes that learning depends on learners’ developmental stages (Fosnot, 1996). However, with cognitive structure, the result of development, maturationalism views learners as active meaning-makers and interpreters of experience. Therefore, age is the major predictor of behavior maturation. The teacher's role is to prepare a developmentally appropriate environment with the curriculum based on 'the analysis of the cognitive requirements of learners and then matched to the learners' stages of development' (p. 10).

Social constructivism, fundamentally non-positivist, holds the perspective that knowledge is constructed within social contexts for 'concept development and deep understanding,' rather than transmitted, and 'learning is in advance of development' (Vygotsky, 1978, p. 89). Different from Piaget's viewpoint that development constrains learning, Vygotsky proposes that development occurs when children learn general concept and principles that can be applied to new tasks and problems.

Bruner (1987) indicated that the concept of ZPD (zone of proximal development) connects a wide range of Vygotsky's learning and development concepts. Learning awakens a variety of internal developmental processes that are able operate only when the child interacts with people in his environments and with his peers. Thus, learning is necessary and universal aspect of the process of development culturally organized, especially human, psychological functions. (Vygotsky, 1978, p. 80)

Vygotsky introduced ZPD as a different approach to view the relationship between learning and environment. He argued that in terms of development, children have two levels, when solving problems, one is the actual level of development, which refers to what they can do alone, and the other is the potential level, which refers to what they can do with assistance. The ZPD refers to the distance between children's actual and potential levels of development, as determined through problem-solving. From social constructivist perspective, thus, dragging learners out of their actual level of development to jointly construct their potential level of development with their teachers or peers is the most effective approach of learning and teaching. In this circumstance, dialogues are useful tools to boost learners to attain their ZPD. Bruner, with an emphasis on modeling, claimed that these dialogues serve as instructional scaffolding, which offers learners a climb to their next steps through offering them hints and props before children can manage their own tasks.

Wertsch (1985) believes that providing learners with contextualized, interpersonal interactions, which are usually semantically mediated social processes, can enhance our understanding about the emergence of internal functioning. That is, social interactions through using a sign system are central to the notion of ZPD because the intellectual skills that learners acquire are directly related to how they interact with the others in problem-solving circumstances. Learners internalize and transform the help from the others and eventually apply these problem-solving strategies to dealing with subsequent problems. Despite its tendency to confine the teaching and learning within the syntactic scope, modeling seems to have its promising potentials in upgrading students’ writing ability especially for less-experienced writers to get a clear sense of the anticipated ways of reading, ways of writing, and most importantly ways of thinking. However, the use of models can help students’ writing development is not empirically clear.

2.3. Literacy and Literate Skills

When one's language knowledge is weak, one depends on prior knowledge to solve problems related to the language to comprehend a text. When one does not have much background knowledge about what he or she listens or speaks, these individual uses language knowledge to understand the information. Thus, EFL teachers will need to help students develop concepts to make good use of both kinds of skills to upgrade their spoken English.

As stated earlier, languages are culturally specific; they are culturally defined (Cook-Gumperz, 1986). Thus, to understand articles in a foreign language, one needs to learn the expected cultural interpretations. Hence, understanding the ‘expected’ meaning of a piece of information requires EFL learners to learn the ‘habitual’ cultural interpretations of main stream members—native speakers of English. Certainly, these learners need to note that different social context tends to have different ways of reading, writing, speaking, and thinking. Learning English as a foreign language involves learning the culturally correct ways of communication of this specific language.
2.4. Flipped Classroom

Research findings on the instructional approach using a flipped classroom which requires students to watch pre-recorded lectures and offers students more time and chances to work on projects that have shown positive effect in improving students’ learning of various school subjects. So, this kind of instruction can have potentials to cope with individual differences, offering students scaffolding from recorded lectures online, interactions with peers via group work, and assistance from the instructor. Empirical evidence suggests students, after completing required task, can have chances to develop their higher-order thinking skills, especially problem-solving abilities (Spencer, Wolf & Sams, 2011; Stone, 2012) and even learner autonomy (Egbert & Sams, 2012).

Often in English conversation classes for freshman students, students’ individual differences, inactive students, time limit, frequent large class size, and limited opportunities for students to practice the targeted language skills in order to enhance their abilities in understanding what they listen to and expressing their opinions in English. This research aimed to examine what the effect of converting the traditional instructional atmosphere into a flipped classroom and strategy-based approach could be on these EFL students’ development of spoken English.

3. The Study

3.1. Research Purpose

This project intended to equip students with the essential English listening and speaking skills which include learning to use ‘culturally appropriate’ ways of communication and ways of thinking, found among the ‘main stream’ native speakers of English. Furthermore, this proposal using a sociocultural approach aimed to help students gradually acquire fundamental English conversation abilities and enhance their understanding of social and global issues.

This qualitative study investigated what the effect of using a flipped classroom, strategy-based approach was on EFL students’ development of fundamental English conversation abilities. Relying on Vygotskian sociocultural conceptual framework, learning to accomplish an activity with scaffolding can help one internalize or acquire the targeted language skills, required to achieve fluent spoken English abilities. The participants of this research were twenty-two freshman medical students from the required freshman English conversation class at a university in southern Taiwan.

3.2. Research Methodology

Research question: What is the effect of using a flipped classroom, strategy-based prerecorded lectures on English conversation skills on students’ development of fundamental spoken English?

3.3. The Participants, Data Collection Method and Procedure

The twenty-two participants of this research were tertiary freshman medical students who attended the required English conversation class for the second term at a university in southern Taiwan. This group of twenty-two participants included ten female students and twelve male students. In Taiwan, English has been listed as one of the required subjects at elementary schools, so the results implied that most participants, twenty of them, started to learn English back then. The other two had studied English a little longer.

The project aimed to use a flipped classroom and strategy-based approach to upgrade the freshman EFL medical students’ spoken English abilities by converting them from passive EFL learners to active agents in developing their English oral abilities. This instructional mode offered this group of students a variety of scaffolding to cope with the following issues: students’ individual differences, inactive students, time limit, frequent large class size, and limited opportunities for students to practice the fundamental spoken English skills. Watching videos about major social or global issues aimed to broaden students’ background knowledge and enhance their sensitivity toward what is happening within the communities they are related to. Hopefully, they can shift their learning status from passive learners to active agents to contribute to this world in their own way.

The data sets included (1) pre-course questionnaire, (2) journal writing, (3) scripts of two informed speech, (4) two oral reports, (5) semi-structured interviews, and (6) field notes based on class observations.

3.4. Survey Questionnaires

Students completed the survey at the start of the semester. The first survey included questions about background. The second part included nine questions regarding how they perceived their listening problems. The third part included nine questions regarding how they perceived their reading problems. The fourth part had eight questions regarding how they perceived their problems when speaking English. The fifth part included nine questions regarding how they perceived their writing problems.

3.5. Semi-Structured Group Interview

In the middle of the semester, the group interview was to encourage them to further explain the results from the questionnaire and class observation data. Two semi-structured interview questions:

- What are your problems when preparing an English talk? Did this class help you to solve any of these problems?
- What are your problems when making an English talk? Did this class help you to solve any of these problems?
3.7. Data Analysis

To better understand the effect of this innovative teaching via a flipped classroom and strategy-based approach on the development of English conversation abilities of this group of freshman medical students, these triangulated data sets had been cross-compared and analyzed (Merriam, 1998).

4. Results

4.1. Different Kinds of Scaffolding

The study adopted a flipped classroom which offered this group of students a variety of scaffolding. One of the scaffolding included watching pre-recorded lectures of a variety of videos about sports, leisure, health, medicine, business world, politics, social justice, and cutting-edge technology. This aimed to offer students more time and a better option to accomplish in-class projects with assistance from peers and the instructor. Interactions with collaborative work with peers and interaction with the instructor were other forms of scaffolding. In class, students discussed and collected problems they had when watching the pre-recorded lectures and shared ideas about how they solved the problems, if any. After this group discussion, they could raise any questions during the whole-class discussions, and the instructor would guide students via instructional conversation to search for solutions to students’ problems. For each video, students were required to respond to questions in groups to collect ideas, then to compose individual journal writing to create more well-developed, well-supported opinions to the prompts, and in groups again to talk about their individual ideas. These interactions with the instructor, peers, and texts, carrying out collaborative work, were to offer students practical scaffolding to help them develop clearer ideas about some of the common topics in daily life.

4.2. Level of Difficulties When Listening To English

How did these participants perceive their level of difficulties when listening to English? This is the second term of the school years, so students had got used to the ‘pace’ of the CNN videos though limited vocabulary bank still burdened their listening. That is, after using a dictionary to take care of new words and phrases, twenty of them reported they had no trouble understanding the gist and the important details of the videos of the class.

4.3. Level of Difficulties Regarding the Control over Sentence-Level Grammar When Reading English

Eight of them reported they had no trouble with sentence-level grammar, fourteen of the participants admitted they had room for improvement in their control over clauses, phrasal verbs, collocations, and vocabulary bank, when reading English articles.

4.4. Level of Difficulties When Speaking English

Getting enough ideas when speaking English is a serious problem for ten students; eight participants found generating ideas was average, not easy. Four of them had no trouble in this part. Choosing relevant information and making logical movement average, was not easy for fourteen students, and five of them found it difficult. Three of them reported very difficult. Organization was easy to twenty of them, but it was not easy to two students.

4.5. Level of Difficulties Regarding the Control over Sentence-Level Grammar When Writing English

Ten of them admitted verb tense was not easy when doing writing, but seven of them reported they found it easy. Use of clauses was a common problem; fifteen of them reported it was not easy. Phrasal verbs were not easy for eight of them; difficult for five of them.

The semi-structured group interview which lasted for about one hour took place in a classroom at the university; 17 out of the 22 participants showed up for this meeting.

4.6. Interview Question 1: What Are Your Problems When Preparing an English Talk? Did This Class Help You to Solve Any of These Problems?

The students were required to do two informed speeches for this course. The first talk was to introduce their home town. More than half of them stated it was more challenging than the second one, introducing their ideal future career, since they rarely did an English talk. Lack of experience made this task unnecessarily difficult. But they found the instructor’s model as shown in part of the explicit teaching helpful, giving them a clear idea about what and how to accomplish assignment. Group discussions offered them chances to think of more ideas to talk about, and journal writing helped them to nail down ideas in English. After completing the first talk with more experience and confidence, they found preparing for the second talk was obviously easier.

4.7. Interview Question 2: What Are Your Problems When Making an English Talk? Did This Class Help You to Solve Any of These Problems?

Many of the students were nervous about doing the first talk, so the instructor offered an individualized scaffolding. They could sit down when doing the talk. Many of them agreed that option helped to decrease their stage fright. Control over anxiety when doing the talk is one of the biggest headaches for most of them. Eight of them simply read either from their script or ppt, but six of them were well-prepared and did outstanding presentations. When being asked, after all the hard work, why wouldn’t they just go one step further? They just needed to give themselves chances to...
The results of this study showed that this group of tertiary medical students had at least high intermediate English proficiency level before the start of this study, and by nature they were relatively more motivated than average college students. Thus, though they had few experiences, if any, in preparing for English talks, but they were typical ‘goal-getters.’ Most of their performance of the second informed speeches showed that the instructor’s feedback to their journal writing and first informed speech obviously offered them encouraging scaffolding. The score of their second talks were evidently better than the first ones, with fewer sentence-level grammatical errors and more well-developed, well-supported information, and most of them were ‘talking’ instead of ‘reading aloud.’

During the group interview, twenty out of twenty-two participants reported the various kinds of scaffolding of this course offered them help at different levels. Most of them found, compared to regular classes, flipped the classroom approach more helpful (Stone, 2012). Watching prerecorded lectures at home offered them chances to listen to what they did not understand more than once; in regular classes, some of them admitted they often did not have enough courage to ask teachers questions in public. However, in group discussions, they felt more comfortable to ask peers questions about what they had trouble with, and some ‘bold’ students could raise questions in public to get assistance from the instructor or the other peers. This kind of collaborative group discussion meant more comfortable options for especially ‘shy’ or ‘quiet’ students to get help they need to complete their course assignment. Explicit teaching, including providing students models in journal writing, and processes of preparing ad making the speeches, according to their feedback during the interview, was helpful. One of them pointed out, when working on a new assignment, such models offered them more concrete ideas about what and how they needed to do in order to accomplish the project. Interestingly, their experiences seemed to serve as another kind of help because when they were clear about what and how to finish the job, their confidence level correlated with their motivation. Their second speeches, in most cases, showed evident improvement, as their experiences seemed to serve as another kind of help because when they were clear about what and how to finish the job, their confidence level correlated with their motivation. Their second speeches, in most cases, showed evident improvement, as

5. Conclusion

The results of this study showed that this group of tertiary medical students had at least high intermediate English proficiency level before the start of this study, and by nature they were relatively more motivated than average college students. Thus, though they had few experiences, if any, in preparing for English talks, but they were typical ‘goal-getters.’ Most of their performance of the second informed speeches showed that the instructor’s feedback to their journal writing and first informed speech obviously offered them encouraging scaffolding. The score of their second talks were evidently better than the first ones, with fewer sentence-level grammatical errors and more well-developed, well-supported information, and most of them were ‘talking’ instead of ‘reading aloud.’

6. References

i. Akbari, Z. (2016). The Study of EFL Students’ Perceptions of Their Problems, Needs, and Concerns over Learning English: The Case of MA Paramedical Students. Procedia-Social and Behavioral Sciences, 232, 24-34.

ii. Casanave, C. P. (1990). The role of writing in socializing graduate students into an academic discipline in the social sciences. Unpublished doctoral dissertation, Stanford University, Standford, CA.

iii. Cook-Gumperz, J. (ed.). (1986). The Social Construction of Literacy. Cambridge: Cambridge University Press.

iv. Egbert, J., Herman, D., & Lee, H. (2015). Flipped instruction in English language teacher education: a design-based study in a complex, open-ended learning environment. Teaching English as a second or foreign language, 19(2). Retrieved from http://www.teslej.org/pdf/ej74/a5.pdf

v. Jordan, R. R. (1997). English for academic purposes: a guide and resource book for teachers.

vi. Cambridge, UK and New York: Cambridge University Press.

vii. Khajavi, Y. & Gordani, YU. (2010). Investigating Iranian MA Students’ Perceptions of their Academic English Language Needs, Abilities and Problems. English for Specific Purposes World, Volume 10 (31), 1-22.

viii. Leki, I. & Carson, J. G. (1994). Students’ Perceptions of EAP Writing Instruction and Writing Needs Across the Disciplines. TESOL QUARTERLY, 28(1), 81-101.

ix. Liu, G. Z. (2005). The trend and challenge for teaching EFL at Taiwanese universities. RELC Journal, 36(2), 211-221.

x. Male, S. A., Bush, M. B., & Chapman, E. S. (2009). Identification of competencies required by engineers graduating in Australia. Retrieved from http://aaeecom.net/2009/PDF/CONFERENCE/AE090085.PDF.

xi. So-mui, F. L. & Mead, K. (2000). An analysis of English in the workplace. The communication needs of textile and clothing merchandisers. English for Specific Purposes, 19, 351-368.

xii. Spence, P. & Liu, G. Z. (2013). Engineering English and the high-tech industry: A case study of an English needs analysis of process integration engineers at a semiconductor manufacturing company in Taiwan. English for Specific Purposes, 32, 97-109.

xiii. Stone, B. B. (2012). Flip your classroom to increase active learning and student engagement. 28th annual conference on distance teaching and learning. University of Wisconsin System.

xiv. Tsai, S. C. (2009). Courseware development for semiconductor technology and its application into instruction. Computer and Education, 52, 834—847.

xv. Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Cambridge, MA: Harvard University Press.

xvi. Wertsch, J.V. (1985). Vygotsky and the social formation of mind. Cambridge, MA: Harvard University Press.