Integrating Modeling into Flipped Classroom for Developing Students’ English Pronunciation Skills at High Institutes for Tourism and Hotels

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ABSTRACT
This research aimed to develop students’ English pronunciation skills at High Institutes for Tourism and Hotels. The research design was one group pre and post-test quasi-experimental design. Participants were 45 1st year students at Egoth High Institute for Tourism and Hotels in Ismailia so that 15 1st year students were nominated from each of the three departments (Touristic Guidance, Touristic Studies and Hotel Studies). In fulfillment of their future careers’ basic needs, a proposed elementary pronunciation course was developed and implemented by integrating modeling as a useful instructional strategy for practical skills into flipped classroom. Four instruments were developed, validated and implemented by the researcher: 1) Online Needs Assessment Questionnaire to identify the required pronunciation skills, 2) Micro Pronunciation Test, 3) Macro Pronunciation Test and 4) Open Interviews with the participants by the end of experimentation. The findings revealed that the proposed integrated pedagogy had a significant positive effect on the 1st year students’ English pronunciation skills at Egos High Institute for Tourism and Hotels in Ismailia.

Key Words: Flipped Classroom, Modeling, English Pronunciation Skills, Micro Pronunciation Skills, Macro Pronunciation Skills, Egypt.
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Abstract

The aim of this study is to develop students’ pronunciation skills in English language among students of the Higher Institutes of Tourism and Hotels. And the design of the research was a semi-experimental design. And the research sample was a group of (54) students from the first section of the Higher Institute of Tourism and Hotels in Sohag, where 54 students were selected from all branches of the institute (Tourism Guidance, Travel Guidance, Hotel Studies). And since the professional needs of these students, the development and implementation of the proposed course to teach pronunciation in the English language within the model of between the model and the reversed section is a strategic educational approach for practical skills. And there were four instruments that the researcher used to test the research tool through the Internet to determine the academic requirements and achieve the research goals. And the tools were: Test of Pronunciation Skills (Theoretical), Test of Pronunciation Skills (Overall), and the results of the research showed that the model of between the model and the reversed section has had a positive large impact on developing students’ pronunciation skills in the English language among students of the first section of the Higher Institute of Tourism and Hotels.

Keywords: Flipped Classroom, Model, Reversal Period, Pronunciation Skills, Students' English Language, Small Pronunciation Skills, Large Pronunciation Skills, Egypt.
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Introduction
No doubt that speaking is the core of English language communication worldwide and the most essential component for competence in speaking is pronunciation (Dandee, & Pornwiriyakit, 2022). In this respect, competence in language learning primarily depends on good English pronunciation since bad pronunciation inflicts difficulties on students’ language communication (Gilakjani, 2012). In addition to language competence, language performance is essentially based on pronunciation and, in turn, pronunciation should be directly involved into language classrooms (Oxford University Press ELT, 2012 and Akyol, 2013). Here, Wongsuriya (2020) states that clear and efficient pronunciation is an ultimate feature of language performance in successful communication.

As an instructional strategy that is helpful for teaching practical skills like pronunciation, modeling gives students the opportunity to see and hear the details of performing the skill for proficiency during presentation and explanation (Sasi, 2012) since it improves students’ understanding of complex skills particularly in higher education (Tersoo, 2018). A crucial limitation of modeling is that students do not have enough time for the practice and performance of the skill to figure out their weaknesses and overcome them since the tutor takes considerable time particularly with large classes to explain and provide demos on the skill (Hoult, 2008). As a result, modeling should be integrated into a pedagogy that allows students to learn the skills at home to save the in-class time where they can intensively and meticulously perform the skills under tutor’s supervision in the class.

Known as inverting classroom, flipped classroom is a pedagogy that reverses the traditional instructional model in conventional classrooms (Kazu, & Yalçın, 2022). It calls for applying knowledge during the class in order to allow the teacher to detect students’ errors, correct them and provide constructive feedback (Aidoo, Tsyawo, Quansah, & Boateng, 2022). Here, students learn the content and study lectures online at home
to save the in-class time for practice, performance and application (Purwanti, Suryawati, & Eliwari, 2022).

Flipped Classroom is commonly applied in higher education to help students get prepared for their future career by increasing the in-class time for intensive performance of the necessary skills and enabling them to master what they learn accordingly (Arnold-Garza, 2014). It can be used for teaching English as a foreign language in higher education as extrapolated from Filiz’s & Benzet’s content analysis study (2018).

Thus, flipped modeling as an integrated pedagogy, in this research, was proposed to develop the basic English pronunciation skills among students of tourism and hotels.

**Context of the Problem**

On delegation to teach English as a Foreign Language (EFL) to students at Egoth High Institute for Tourism and Hotels in Ismailia, it was noticed that students’ English pronunciation was extremely low. For instance, they used to insert unnecessary sounds in words as they used to insert different sounds before /s/ or /z/ sounds in plurals like saying /θɪŋgɪz/ by adding the sounds /g/ and /i/ before /z/ instead of saying /θɪŋz/ for the word “Things”. They also used to replace the sounds /θ/ and /ð/ by the sounds /s/ and /z/ as they used to say /fɑːzət/ instead of /fɑːðət/ for the word “father”.

To figure out the significance of the English pronunciation skills for the students at the high institute for Tourism & Hotels, pilot open interviews were conducted with 180 students from the three departments (Touristic Guidance, Touristic Studies and Hotel Studies) in the four years at Ismailia Egoth High Institute for Tourism and Hotels. They were asked questions about their ability to communicate with tourists and their bad need to develop their English pronunciation skills. They all asserted their bad need of pronunciation practice to communicate orally and successfully in their future career. Also, interviews were conducted with two hotel managers as well as four HR officials in four touristic companies / agencies in Ismailia. They were asked about the top reasons for which they rejected many applicants to jobs in the tourism sector. They all referred to the applicants’ inadequate English pronunciation.

To investigate the problem, a preliminary English Pronunciation Test was initially administered with 84 students in the 1st semester of the academic year 2021-2022. 21 students were nominated from each of the four years so that there were 7 students from each of the three departments (Touristic Guidance, Touristic Studies and Hotel Studies) in
each year. The test had eight main questions that asked students individually to read words, articulate plurals ending with -s and -es, articulate possessives & contractions with final –s, pronounce minimal pairs and past tense verbs, stress nouns and numbers as well as utter questions and exclamations. Pilot test duration was 50 minutes so that each student was assigned to record their oral responses by using their tablets or cell phones. Those orally recorded files were gathered and saved on a flash drive for later assessment. The findings showed the vast majority of students’ lack of the basic pronunciation skills.

To check out the reasons for such poor English pronunciation, content analysis was conducted subsequently to the prescriptions of the English Language courses for the two semesters of the four years in the three departments (Touristic Guidance, Touristic Studies and Hotel Studies) at Ismailia Egoth High Institute for Tourism and Hotels. It was found out that English language courses were void of any presentations or tasks on any English pronunciation skill.

Thereafter, open interviews took place with six university staff members of Teaching English as a Foreign Language in an attempt to figure out more reasons for students’ lowest performance of the basic English pronunciation skills. The findings were in line with the pilot content analysis to confirm that students did not possess the English pronunciation skills due to inadequacy of pronunciation practice tasks and ignorance of assessing pronunciation skills in the semester exams at the institution.

Consequently, lack of pronunciation skills was confirmed for students of tourism and hotels. Therefore, the current research attempted to develop their English pronunciation by integrating modeling as a useful instructional strategy for teaching practical skills into flipped classroom in order to make them eligible for successful oral communication in the field of tourism and hotels at the labor market after graduation.

Statement of the problem

Despite the clear-cut importance of English pronunciation for language competence and performance, students at Ismailia Egoth high institute for tourism and hotels lacked the pronunciation skills necessary for successful oral communication in their future career after graduation. Students’ performance in such skills was inappropriate as indicated in the pilot open interviews and as revealed by the results of the preliminary English pronunciation test. This could be due to the absence of the pronunciation skills from the English language courses of the institute as pinpointed by content analysis.
**Questions**

The research sought to find answers to the following questions:

1. What are the English pronunciation skills mostly needed by the 1st year students of tourism and hotels?
2. What are the features of Flipped Modeling as a proposed integrated pedagogy?
3. What is the effect of integrating modeling into flipped classroom on the English pronunciation skills among 1st year students of tourism and hotels?
4. To what extent is the integration of modeling into flipped classroom beneficial to students of tourism and hotels?

**Hypotheses**

1. There is a statistically significant difference between the mean scores of the tourism and hotels students’ Micro Pronunciation Skills in the pre- and post-administrations of the Micro Pronunciation Test in favor of the post-administration.
2. There is a statistically significant difference between the mean scores of the tourism and hotels students’ Macro Pronunciation Skills in the pre- and post-administrations of the Macro Pronunciation Test in favor of the post-administration.
3. There is a statistically significant difference between the mean scores of the tourism and hotels students’ overall Pronunciation Skills in the pre- and post-administrations of the Micro Pronunciation Test and the Macro Pronunciation Test in favor of the post-administration.
4. Flipped Modeling has a high positive effect on the English pronunciation skills among 1st year students of tourism and hotels.

**Aim of the research**

The aim of this research is to develop the 1st year students’ English pronunciation skills that are mostly needed for efficient communication.

**Delimitations**

The research was delimited to the following:

1. 45 1st year students at Ismailia Egoth High Institute for Tourism and Hotels.
2. The following basic English Pronunciation Skills that are mostly needed by 1st year students of tourism and hotels according to literature review and jury’s views:
a. Micro Pronunciation Skills of Segmental features: consonants, vowels, diphthongs and finals “s, es, ed”

Review of literature and related studies

1. English Pronunciation Skills

This section reviewed the English pronunciation skills in order to prepare an inventory of pronunciation skills to be submitted to students, university staff members of TEFL and the marketplace in the field of tourism and hotels via online needs assessment questionnaire. In order to help students to communicate in English with competence, English pronunciation should be introduced to students as pronunciation skills help them make up the appropriate production of sounds. (Katz, 2013, p.3 and Bear, 2018). Such skills establish the foundation of good pronunciation (Adult Migrant English Program Research Centre, 2002, p.2).

According to Gilakjani (2012), there are two main categories for English pronunciation skills: a) Micro skills that are related to segmental features of pronunciation and b) Macro skills that are related to the suprasegmental features of pronunciation. Micro pronunciation skills focus on phonemes (consonant sounds and vowel sounds) and when they are acquired, phonemic awareness is established (Macmillan Education ELT, 2014 and Martinelli, 2016). On the other hand, macro pronunciation skills focus on connected speech (Sentence Stress, Linking and Intonation) and when they are acquired, phonological awareness is established at the word level (Word Stress) or sentence level (Gilakjani, 2012 and Macmillan Education ELT, 2014).

Moreover, Tomčíková (2006) adds the pronunciation skill of “Triphthongs” for vowel sounds in segmental features, and also refers to the pronunciation skills of “Stressed Syllables”, “Assimilation” and “Elision” in the suprasegmental features. “Rhythm” is also an essential pronunciation skill of suprasegmental feature in connected speech that comes with syllable stress & word stress (Roach, 2012, pp. 107-110).

In light of the pronunciation skills discussed in this section, an inventory of the English pronunciation skills was initially prepared in an online questionnaire and submitted to students of tourism and hotels, a jury committee in the field of TEFL as well as labor market in the field of tourism and hotels to select the mostly needed pronunciation skills. After administering the questionnaire, the following basic pronunciation skills...
should be developed among the 1st year students at Ismailia Egoth High Institute for Tourism and Hotels:


b. Macro Pronunciation Skills of Supra-segmental features related to Phonological Awareness in connected speech: Linking, Eliding, Using Intonation as well as Stressing Syllables and Words.

2. Flipped Classroom

2.1 Flipped Classroom Definition

Flipped classroom is commonly defined as pedagogical approach in which students learn the content before the class so that the in-class time can be best allotted for students’ in-depth understanding via individual, pair or even group interactive class activities that are guided and facilitated by the tutor (Wolff & Chan, 2016 and Higher Education Academy, 2017). Flipped classroom can be implemented in different and various forms such as extensive online reading, teacher-centered or student-led discussions online or face-to-face, further research as well as online lecturing or presentations by professional third parties other than the tutor (Abeysekera & Dawson, 2015). In flipped classroom, lectures are shared outside the class to enhance students’ self-pacing and the class time is reversed for intensive and interactive practice to make the classroom learning environment active and allow the tutor to treat the shortcomings in the struggling students’ performance (Panopto, 2021).

Flipped classroom is procedurally defined as “A pedagogical approach that inverts the conventional learning experiences by supporting collaborative online or face-to-face discussions among students of tourism and hotels before class in a way that allows them to learn and practice the target pronunciation skills outside the class to get prepared for in-class tutor-mentored performance of the skills”.

2.2 Flipped Classroom Merits

Flipped classroom calls for student’s learning before the class at home and practice in the class with the attendance of the tutor. Hence, it rejects the routine of tutor lecturing and presentation in the class and replaces them with interactive and intensive individual, pair and group in-class tasks (Rosenberg, 2013). In agreement with the results of the studies by Alsowat (2016); Zainuddin (2017); Hsieh, Wu, & Marek (2017); Lin & Hwang (2018); and Saglam & Arslan (2018), flipped classroom had a
significant effect on higher education students’ learning, elaboration, collaborative participation and attitudes towards EFL courses.

In higher education, flipped classroom changes the tutor’s role from a lecturer to a guide, increases students’ class attendance and improves students’ achievement (Higher Education Academy, 2017).

As a support for mastery learning, the tutor provides the students in flipped classroom with learning materials carefully selected from different online resources for professional teachers worldwide before the class so as to make the best use of in-class time to be allotted for students’ intensive practice of the new concept or skill with the attendance of the tutor as a guide (Pappas, 2012; Mehring, 2016 and Acedo, 2018). This is in line with Ahmad’s study (2016) that managed to develop the Egyptian EFL higher education students’ listening comprehension skills. In flipped classroom, mastery leaning is ensured via students’ attempt to accomplish the intended learning outcomes (ILOs) in EFL contexts as approved in Webb’s & Doman’s study (2016). Mastery learning is also verified as students cannot learn a new concept or skill until they show progress with the current one (Arnold-Garza, 2014).

As a remedial tool of treating the drawbacks, the tutor can easily pick up the struggling students via flipped classroom and identify the difficulties which they encounter while learning the content at home before the class. (Pappas, 2012 and Bergmann & Sams, 2014). This way, it promotes individualization of instruction particularly with the students who need extra assistance (Acedo, 2018). Above all, students’ self-pacing is considered in flipped classroom since they can repeat what they have learnt in the provided multimedia-based materials and review before the class to avoid wasting the in-class time with content presentation (Bergmann & Sams, 2014 and Mehring, 2016).

2.3 Flipped Classroom Phases

Stannard (2020) and Khasanah & Anggoro (2022) refer to the following two main phases for flipped classroom to turn the class onto its head by inverting the conventional learning experiences of the classroom: 1) Outside-Class Phase for Learning and Practice and 2) In-Class Phase for Performance and Application.

In the Outside-class phase, students get themselves prepared by studying the provided learning materials before class time as they can listen to audios, watch videos, take interactive quizzes or have mini tests as well as take part in online discussions (Filiz & Benzet, 2018 and Khasanah & Anggoro, 2022). In the studies that were conducted by
Ahmad (2016) and Alsoat (2016) for developing EFL flipped classroom frameworks, they recommended to start the outside-class phase by an orientation session where the tutor delivers the learning materials, provides an overview on the topic of learning and guides them on the steps of learning the content outside the class. Here, social media networks like WhatsApp, Twitter and Facebook can be used for accessibility of learning materials (Quyen & Van Loi, 2018 and Al-Zoubi & Suleiman, 2021).

In the In-class phase, students perform the skills and apply the key concepts so that their performance and application are guided by tutor’s mentoring and constructive feedback during the class time (Filiz & Benzet, 2018 and Stannard, 2020). By having students study the content at home, in-class time can be fully used for providing help and treating the shortcomings in students’ performance as well as for enabling unsuccessful students to comprehend the difficult knowledge if needed (Boyraz, & Ocak, 2017).

A third phase that might take place outside the class for reflective practices in case of unsuccessful students who need to extend their learning for deeper understanding outside the class as they are aware of their weaknesses and have a larger number of resources after the class (Texas Faculty Innovation Center, 2013).

2.4 Flipped Classroom and English Pronunciation

Language skills can be enhanced when flipped classroom is used to develop students’ phonemic or phonological awareness. Flipped classroom was proved to be successful in developing the speaking skills of the pre-service English Language teachers in terms of accuracy and pronunciation skills as shown in Koroglu’s & Cakir’s study (2017).

Flipped classroom can be promoted by three driving factors of language competence and performance when developing the English pronunciation skills. First, expanding students’ interaction and active participation to perform the pronunciation skills in the class is possible when implementing flipped classroom as indicated by findings in Khasanah’s & Anggoro’s study (2022). Second, incorporating activities like storytelling, discussion, conversation and oral group presentation into flipped classroom can positively affect the oral proficiency of higher education EFL students’ pronunciation (Wu, Hsieh, & Yang, 2017). Third, integrating self-monitoring while practicing the English
pronunciation outside the class can lead to better acquisition of pronunciation skills as recommended by Kenworthy (1988, p.118).

For better pronunciation learning, flipped classroom should allow for the use of digital technology online or offline. In Cunningham’s study (2015), an online course including web-based English articulation of sounds on BBC Learning English website was delivered to improve the English pronunciation among the Swedish primary non-specialist teachers of English. In addition, integrating mobile-assisted language learning into flipped classroom makes English teaching work successfully online and offline as shown in Obari’s & Lambacher’s case studies in 2015 at a private university in Tokoyo. The findings approved flipped classroom’s high positive effect on students’ oral proficiency.

3. Modeling

3.1 Definition of Modeling

Modeling is an instructional strategy where the tutor verbally explains and explicitly demonstrates how to perform a practical skill (Francisco, 2017 and Coleman, 2020). Here, Tersoo (2018) refers to the process of explanation as verbal information and to the experiments, examples or performance following the explanation as visual information. In light of the research variables and the previously discussed definitions, modeling can be operationally defined as “An instructional strategy that provides students of tourism and hotels with audio-visual demonstrations supported by explicit and clear explanation on the target English pronunciation skills and followed by tutor-mentored performance for mastery learning”.

3.2 Stages of Modeling

In their video presentations, Sethi (2020), Stairs to Excellence (2020) and Chalan Academy (2021) share the following five essential steps of modeling:
1. Explaining and describing the procedures and criteria of performing the skill.
2. Tutor step-by-step demonstration to show how the skill is accurately performed.
3. Student Performance of the skill.
4. Monitoring students’ progress while training them on how to follow the procedures in light of the criteria.
5. Assessing students’ performance to check out their stand-alone performance of the skill without tutor’s assistance.
3.3 Modeling and English Pronunciation

Modeling is more advantageous for English language students (Coleman, 2020). It was approved in Chein’s study (2019) as a useful instructional strategy used to help student teachers of English explicitly explain the skills of pronunciation to their learners. In agreement with Chein’s study, Husnu’s study (2018) refers to modeling as an effective teaching method for teaching a skill-type subject matter. In this study, effectiveness of modeling was approved when investigated to solve problems in students’ English speaking by improving pronunciation, grammar and vocabulary. In Moedjito’s reappraisal study (2018) on EFL pronunciation teaching, supporting modeling with interactive quizzes, intensive practice, review and formative assessment was significantly correlated to improving English pronunciation for higher education students enrolled at the Department of English Language Teaching. Thus, it was integrated into flipped classroom in the current research for developing the English pronunciation skills among students of tourism and hotels.

4. Flipped Modeling as an integrated pedagogy

4.1 Procedural definition of Flipped Modeling

When modeling is integrated into flipped classroom, flipped modeling can be procedurally defined in light of the research variables as “An integrated pedagogical approach in which Tourism and Hotels students are allowed outside-class to learn the provided multimedia based explanations and audio-visual demonstrations for the English pronunciation skills, answer computer quizzes as well as participate in collaborative discussions and peer assessment online or face-to-face to get actively involved via in-class mentored performance and formative assessment for mastery learning“.

4.2 Rationale for integrating modeling into flipped classroom

It is recommended to integrate modeling into flipped Classroom since each pedagogy in such integration, helps solve the critical issues of the other substantially when used to develop the target English pronunciation skills.

In case of classes with a great number of students, modeling is ineffective and usually fails (Sasi, 2012) as it takes much time to explain the criteria and steps of performing the skill and provide demonstrations since struggling students often ask for repetition. Hence, students’ progress is delayed because the time allotted for their live performance of
the target skills is decreased (Francisco, 2017). Consequently, students’ direct experience of interaction is minimized. Hereafter, using flipped classroom with modeling helps students learn the provided explanations and demonstrations individually outside the class at their own learning pace. Thus, they make the best use of the whole time allotted in the class for live performance with the attendance of the tutor as a mentor.

When using modeling, direct learning experience via students’ interaction only occurs during their performance of the target pronunciation skills. Students’ interactions are not allowed during the explanation or tutor demonstration of the skill (Tersoo, 2018). By integrating modeling into flipped classroom, students can have the opportunity of direct learning experience via peer assessment as well as online interactive pair or group discussions. Moreover, students’ interaction with the learning materials of explaining and demonstrating the skill becomes possible through the use of the digital devices which are personally available outside-class.

For classrooms that are unequipped with the necessary audio-visual aids or multimedia digital devices, modeling can hardly be administered for learning or practicing the target skills (Farooq, 2013 and Francisco, 2017). Nevertheless, integrating modeling into flipped classroom allows students to use the digital technology available outside the class; such as cell phones, PCs, laptops or tablets.

In flipped classroom, students’ accountability is missing if the tutor relies on them to get prepared for the performance of the skills by acquiring the required information from the learning materials outside the class (Acedo, 2018). Thus, integrating modeling into flipped classroom helps the tutor mainly focus on students’ performance of the target pronunciation skill. Accordingly, students are highly motivated to get prepared by doing rehearsal individually, in pairs or even groups before the class to show some progress with their performance of the skill in the class. The following table shows the benefits of integrating modeling into flipped classroom.
Flipped Modeling: Integrating Modeling into Flipped Classroom

<table>
<thead>
<tr>
<th>Flipped Classroom</th>
<th>Modeling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One-on-One Learning:</strong></td>
<td><strong>Students’ Application:</strong></td>
</tr>
<tr>
<td>Self-autonomous learning and self-pacing are promoted as students study the provided materials individually and in light of their learning speed to get prepared before class for the performance of the pronunciation skills.</td>
<td>Students can experience learning directly by practicing the performance of the target skills.</td>
</tr>
<tr>
<td><strong>Individualization of Instruction:</strong></td>
<td><strong>Tutor Assessment and Feedback:</strong></td>
</tr>
<tr>
<td>Outside-class Time: Students can interact with the digital content of the available materials. Thus, they can have direct learning experience.</td>
<td>As students perform the target pronunciation skills in the class, the tutor works as a mentor to judge students’ performance level and progress and as a facilitator to guide them towards the correct response.</td>
</tr>
<tr>
<td>In-class Time: Tutor can individualize instruction &amp; provide extra help for struggling students during the class.</td>
<td><strong>Accountability:</strong></td>
</tr>
<tr>
<td><strong>Progressive Diagnosis:</strong></td>
<td>Students are responsible to gain access to the knowledge required to learn the target pronunciation skills as they have to perform them with the attendance of the tutor.</td>
</tr>
<tr>
<td>Struggling students can be easily selected and, in turn, tutor can efficiently address their points of weakness.</td>
<td><strong>Digitization:</strong></td>
</tr>
<tr>
<td>Students learn by using their personal digital devices (e.g., tablet, PC, cell phone) that could be available to help them receive direct instruction outside the class rather than in the class.</td>
<td>Students learn by using their personal digital devices (e.g., tablet, PC, cell phone) that could be available to help them receive direct instruction outside the class rather than in the class.</td>
</tr>
<tr>
<td><strong>Self-Preparation &amp; Time Save:</strong></td>
<td><strong>Accessibility of the Content:</strong></td>
</tr>
<tr>
<td>Students have the chance to get themselves prepared for the target pronunciation skill as they get oriented before the class. Students also learn the provided materials and practice via computer quizzes and peer assessment before performing their pronunciation skills for the tutor in the class. This saves the time for the tutor to mentor and assess students’ performance of the pronunciation skill.</td>
<td>Students who miss class can get the learning materials that are available any time.</td>
</tr>
</tbody>
</table>

### 4.3 Flipped Modeling Framework

In light of the research variables as well as the previously discussed stages of flipped classroom and modeling strategy, the following framework was proposed to answer the second research question:
Figure (1) refers to the following two main phases for flipped modeling:

1. Outside-class Phase:

This phase takes place online outside the classroom once students begin to learn a new English pronunciation skill. It starts with one-hour online orientation session where the tutor provides the students with an overview about the topic of the target skill and send them the following learning materials in digital form: Student Guide with a course schedule and steps to follow inside and outside the class and In-class in PDF and Video formats, Multimedia PPT/Flash Presentations, Professional Videos for skillful demonstrations on the target pronunciation skills and computer quizzes. In addition, the tutor informs the students about the ILOs and guides students on the steps of learning the provided materials outside the class. Students who do not manage to join the orientation session due to online connection issues, can get such materials on flash drive or DVD by the students who manage to have the materials online.

After the online orientation session, this stage lasts for three days with three-hour tutor-mentored session per day outside the class. Here, students go through five main steps under tutor’s online supervision: Explanation, Demonstration, Wrap-up, Digital Quiz and Peer Assessment. First, students study the explanation and learn about the
criteria and procedures of performing the pronunciation skill via PPT/Flash multimedia presentations. Second, students watch video and audio-visual demonstrations for English native speakers professionally performing the target pronunciation skill. These videos are carefully selected by tutor to guarantee students’ successful skill performance.

In the third step following the demonstration, students review the topic via wrap-up materials to get prepared for a computer quiz online or offline in the fourth step. This digital quiz aims to test students’ knowledge on the performance of the target pronunciation skill and guarantee students’ commitment to learn the materials before the class as advised in Fang’s study (2020). Students’ scores are automatically uploaded and sent via email by the end of the quiz. If they get less than 90% in the quiz, they go back again to study the explanation and watch the demos. When they get 90% or more, they move on to the fifth step where they imitate the video demonstrations on the target skill and video record their initial responses to share them online with classmates for peer assessment. Students’ recorded responses are sent to the tutor via WhatsApp to guarantee students’ commitment.

Finally, students mutually exchange feedbacks on points of weakness and strength via collaborative discussions outside the class either online or face-to-face. In light of the provided comments in the discussions, students go back again to study the explanation and watch the video demonstrations until they overcome their points of weakness via peer assessment. Here, students’ feedbacks in peer assessment are sent to the tutor via WhatsApp to guarantee students’ reliability. By the end of this phase, students should be prepared for their in-class monitored performance with the attendance of tutor as a mentor.

2. In-class Phase:

In-class time is saved here for intensive practice and deeply mentored performance since students learnt the materials before the class in the previous phase. This phase occurs inside the class in two sessions on two days with one session per day: Application Session and Formative Assessment Session.

The application session lasts for four hours where students apply the acquired pronunciation skill and the tutor monitors students’ progress. Students’ performance is mentored by the tutor who, in turn, provides them with immediate and constructive feedback to correct their errors in performance and figure out the reasons for mis-practices. Here, students who are unsuccessful with acquiring the target pronunciation skill outside-class, in-class time can be allotted for improving their acquisition
of the target skill without affecting the progress of the other students. Moreover, clever students are allowed to video-record their in-class performance of the target pronunciation skill for self-assessment of points of weakness and strength after the class and for sharing with unsuccessful students to help them get prepared for the formative assessment session on the next day.

In the formative assessment session, students are divided into three groups of 15 students with one examiner (assistant lecturer of TEFL) for each group to assess each student’s performance of the target pronunciation skill. Students only reach the mastery level and move on to learn and practice the next skill only when they get 90% or more. Otherwise, they go back again to learn and practice the current skill after the class. Here, unsuccessful students can watch the video-recordings of successful classmates and discuss their comments outside the class. Above all, struggling students can compare their unsuccessful video-recorded responses with the in-class videos recorded for brilliant classmates who manage to reach the mastery level.

Method
1. Participants:
45 1st year students who enrolled at Ismailia Egoth High Institute for Tourism and Hotels in the academic year 2021-2022. 15 1st year students were randomly selected from each of the three departments (Touristic Guidance, Touristic Studies and Hotel Studies). Their ages ranged between 17 and 18 years old. Resitters were excluded. Participants were selected from the 1st year because the proposed pronunciation course aimed to provide them with the elementary and basic pronunciation skills to develop their English pronunciation.

2. Instruments:
Four instruments were developed, validated and implemented by the researcher.
   a. Online Needs Assessment Questionnaire:
   To answer the first research question, this online questionnaire aimed to identify the mostly needed English pronunciation skills for students’ professional language communication at Ismailia Egoth High Institute for Tourism and Hotels after graduation. A list of pronunciation skills was included according to review of literature and related studies. It is a closed-ended list of 16 pronunciation skills classified into two categories (Micro Pronunciation skills and Macro Pronunciation skills) with a gradual scale of three levels (not needed, needed and mostly needed). It was submitted online via emails, Facebook & WhatsApp in
the 1st semester of the academic year 2021-2022. It was conducted on three main sources for needs analysis:

- Specialists (nine university TEFL staff members)
- Labor market employers in the field of tourism & hotels (18 Hotel Managers of beach resorts in Hurghada, Marsa Matrouh, Sharm El-Sheikh, Dahab, Ras Sedr and Nuweiba)
- 150 1st year students (50 students from each of the three departments)

b. Micro Pronunciation Test

This test aims to assess students’ micro pronunciation skills. It is an oral test that was individually administered before (March 1st, 2022) and after (April 16th, 2022) the treatment. The test duration is 30 minutes. Each participant was allowed to record his/her responses on personal digital devices (Tablet, Cell Phone or Laptop) in a lecture hall at the Tourism and Hotels High Institute. Such orally recorded responses were saved in the form of audio files and were collected by the researcher for later assessment. The test validity was checked by submitting a checklist to university jurors of TEFL staff members to figure out how the ILOs are represented by the test items via two-level scale of relevancy (irrelevant and relevant) between each ILO and its test items. The test reliability was checked by using Alpha (α) formula to estimate the reliability coefficient that turned out to be (91.7%). So, the test validity and reliability were established.

c. Macro Pronunciation Test

This test aims to assess students’ macro pronunciation skills. It is an oral test that was individually administered before (March 2nd, 2022) and after (April 17th, 2022) the treatment. The test duration is 60 minutes. Each participant was allowed to record his/her responses on personal digital devices (Tablet, Cell Phone or Laptop) in a lecture hall at the Tourism and Hotels High Institute. Such orally recorded responses were saved in the form of audio files and were collected by the researcher for later assessment. The test validity was checked by submitting a checklist to university jurors of TEFL staff members to figure out how the ILOs are represented by the test items via two-level scale of relevancy (irrelevant and relevant) between each ILO and its test items. The test reliability was checked by using Alpha (α) formula to estimate the reliability coefficient that turned out to be (89.2%). So, the test validity and reliability were established.
d. Open Interviews

Open interviews were administered by the end of the experimentation (April 18th, 2022) to gather data for qualitative analysis and answer the fourth research question. These interviews aimed to determine to what extent students of tourism and hotels were satisfied with the flipped modeling-based pronunciation course and how it was beneficial for them. In those interviews, students were asked questions about their motivation for learning, time management, availability and accessibility of the learning materials, benefits of studying the learning materials provided before the class, flipped modeling’s effect on learning and how useful the proposed flipped modeling pronunciation course for their future careers in the field of tourism and hotels. All the participants responded positively and appropriately to the interview questions.

3. Design:
   a. One Group Pre and Post Test Design of the Quasi-experimental method.
   b. Descriptive method was used for the discussion of results and qualitative data collected from after-treatment open interviews.

**The Pronunciation Course**

The proposed elementary pronunciation course is divided into two modules. For each module, there are three topics as follows:

<table>
<thead>
<tr>
<th>Table (2) The proposed elementary pronunciation course outline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Module One</strong> “Micro Pronunciation Skills”</td>
</tr>
<tr>
<td>Segmental Features:</td>
</tr>
<tr>
<td>Topic 1: Voiced and Voiceless Consonants</td>
</tr>
<tr>
<td>Topic 2: Short and Long Vowels</td>
</tr>
<tr>
<td>Topic 3: Diphthongs and Finals (s), (es) and (ed)</td>
</tr>
<tr>
<td><strong>Module Two</strong> “Macro Pronunciation Skills”</td>
</tr>
<tr>
<td>Supra-segmental Features:</td>
</tr>
<tr>
<td>Topic 1: Linking and Elision</td>
</tr>
<tr>
<td>Topic 2: Intonation</td>
</tr>
<tr>
<td>Topic 3: Syllable and Word Stress</td>
</tr>
</tbody>
</table>

**Treatment**

Before starting the treatment, an introductory session was held to provide the participants with an overview for the course outline, the steps of learning the course as well as an introduction to phonetics. In the treatment, the proposed elementary pronunciation course was carried out by integrating modeling into flipped classroom in the 2nd semester of the academic year 2021-2022. The course was composed of two modules
with three topics for each one. For each topic in each module, there were **two** in-class sessions (Application session and Formative Assessment session) preceded by outside-class learning which started with One-hour online orientation session with the tutor after which students learnt the provided digital materials individually, in pairs and in groups along with tutor’s online monitoring via WhatsApp Group in three hours daily for three days. There was **one** week for each topic so that Saturdays, Sundays and Mondays were for the outside-class learning; Wednesdays were for the in-class application sessions and Thursdays were for the in-class formative assessment sessions. For each module, there were 30 outside-class hours (1-hour online orientation and 9 hours on 3 outside-class sessions of the three topics in the module) in addition to 15 in-class hours (4-hour in-class application session and 1-hour formative assessment session for each of the three topics in the module). The treatment took place accordingly in almost six weeks starting from March 5th 2022 and ended on April 14th 2022. Holidays were excluded.

**Results**

To answer the third research question, the hypotheses were statistically tested and discussed as follows:

**Hypothesis I** stated “There is a statistically significant difference between the mean scores of the tourism and hotels students’ Micro Pronunciation Skills in the pre- and post-administrations of the Micro Pronunciation Test in favor of the post-administration.” The paired samples t-Test was used to check this hypothesis. The following table shows the results related to participants’ micro pronunciation skills.

<table>
<thead>
<tr>
<th>Hypothesis I</th>
<th>Pre-administration</th>
<th>Post-administration</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 45</td>
<td>15.2444</td>
<td>4.18957</td>
<td>-54.05</td>
</tr>
</tbody>
</table>

Table (3)

Table (3) shows that there is a difference between the mean scores of the micro pronunciation skills in the Pre-and Post-administrations of
the micro pronunciation test. The difference was statistically significant (t= -54.05, p<0.05).

**Hypothesis II** stated “There is a statistically significant difference between the mean scores of the tourism and hotels students’ Macro Pronunciation Skills in the pre- and post-administrations of the Macro Pronunciation Test in favor of the post-administration.” The paired samples t-Test was used to check this hypothesis. The following table shows the results related to participants’ macro pronunciation skills.

**Table (4)**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Pre-administration</th>
<th>Post-administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Mean</td>
<td>St. Deviation</td>
</tr>
<tr>
<td>45</td>
<td>3.2667</td>
<td>1.28629</td>
</tr>
<tr>
<td>-41.06</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

**Table (4)** shows that there is a difference between the mean scores of the macro pronunciation skills in the Pre-and Post-administrations of the macro pronunciation test. The difference was statistically significant (t= -41.06, p<0.05).

**Hypothesis III** stated “There is a statistically significant difference between the mean scores of the tourism and hotels students’ overall Pronunciation Skills in the pre- and post-administrations of the Micro Pronunciation Test and the Macro Pronunciation Test in favor of the post-administration”. The paired samples t-Test was used to check this hypothesis. The following table shows the results related to participants’ overall pronunciation skills.

**Table (5)**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Pre-administration</th>
<th>Post-administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Mean</td>
<td>St. Deviation</td>
</tr>
<tr>
<td>45</td>
<td>18.4444</td>
<td>4.61005</td>
</tr>
<tr>
<td>-68.49</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

**Table (5)** shows that there is a difference between the mean scores of the overall pronunciation skills in the Pre-and Post-administrations of the
micro pronunciation test and macro pronunciation test. The difference was statistically significant (t= -68.49, p<0.05).

Hypothesis IV stated “Flipped Modeling has a high positive effect on the English pronunciation skills among 1st year students of tourism and hotels”. The effect size ($\eta^2$) was estimated to check this hypothesis. The following table shows the values of ($\eta^2$) for the participants’ micro pronunciation skills, macro pronunciation skills and overall pronunciation skills:

**Table (6)**

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Dependent variable</th>
<th>$t^2$</th>
<th>DF</th>
<th>$\eta^2$</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flipped Modeling</td>
<td>English</td>
<td>Micro</td>
<td>2921.4025</td>
<td>0.98</td>
<td>Large</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Macro</td>
<td>1685.9236</td>
<td>0.97</td>
<td>Large</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Overall</td>
<td>4690.8801</td>
<td>0.99</td>
<td>Large</td>
</tr>
</tbody>
</table>

According to table (6), Eta-squared was used to calculate the effect size of flipped modeling on the English pronunciation skills among 1st year students of tourism and hotels. The effect sizes were high ($\eta^2 = 0.98$, 0.97 and 0.99); therefore, flipped modeling had a high positive effect on the English pronunciation skills among 1st year students of tourism and hotels.

**Discussion of results**

The high positive impact of integrating modeling into flipped classroom may be due to the benefits that were mutually gained from combining both of them.

Flipped classroom allowed for expanding participants’ interaction and direct learning experience. The participants studied the provided PPT/Flash presentations, watched the recommended professional video demonstrations and took digital quizzes to answer and get immediate constructive feedback on the target pronunciation skills at home before the class. Hereby, they got ready for interactive tutor-mentored performance in the class. This is in line with the successful implementation of flipped classroom model in Ahmad’s study (2016) in which the Egyptian EFL students of higher education watched online videos and used PowerPoint lectures outside the class to be eligible for in-class intensive practice.
Flipped classroom considered the individual differences. From the perspective of learning speed, studying the content outside the class promoted the participants’ self-pacing as repetition was possible for struggling students and slow learners. Providing the learning materials before class supported individualization of learning and encouraged participants’ self-autonomy. Participants’ preferences for individual, pair or group learning were also considered in flipped classroom as pinpointed by Bergmann & Sams (2014).

In flipped classroom, participants successfully overcame the problems of fossilized mispronunciation. This might be due to the careful selection of online videos that provided clear explanations and skillful demonstrations for professional native speakers of English on the target pronunciation skills. Also, the technical features of the navigating and controlling motions of videos on digital devices allowed the participants to scrutinize the detailed physical features for the performance of the target pronunciation skills. As a result, participants’ in-depth understanding and mastery learning of the pronunciation skills were established.

In flipped classroom, the tutor became a guide on the students’ side rather than a sage on the stage. The tutor was just a facilitator in flipped classroom as indicated by Higher Education Academy (2017). Here, group work was allowed as discussions were available face-to-face and online among the participants through PC, Tablet, Laptop and Cell Phones. They were very helpful for the participants to provide comments on their learning and practice and, in turn, overcome their weaknesses and promote their strengths as revealed in Obari’s & Lambacher’s case studies (2015); and Wu’s, Hsieh’s, & Yang’s study (2017). For pair work, the peer assessment that was involved outside the class encouraged the participants to practice deeply and mutually exchange constructive feedback on their performance of the target pronunciation skills in a way that allowed for them to learn from their mistakes. This goes in line with the study conducted by Ng & Cheung (2019) in which peer assessment was integrated into flipped classroom and proved to be effective in turning the lackadaisical learning environment outside the class into a challenging one that deepened students’ understanding of the content.

Flipped classroom worked properly with large classrooms since it inverted the conventional classroom learning experience of in-class presentation and outside-class practice of assignments at home as stated by Sasi (2012) and Francisco (2017). Thus, in-class time was best and fully allotted for participants’ intensive and extensive tutor-mentored performance during the class. This, in turn, enabled participants to
eliminate any hurdles of understanding the instructional content provided outside class without negatively affecting the progress of other participants in the class.

Modeling is a useful instructional strategy which is appropriate for teaching skill-type subject matter as extrapolated from the findings of studies by Husnu (2018) and Chein (2019). Modeling is particularly effective in teaching practical skills as it provided a clear picture in participants’ mind on how to perform the target pronunciation skills as indicated by Coleman (2020). Using interactive quizzes and formative assessment tasks in modeling successfully supported the participants’ development of the English pronunciation skills as shown in Moedjito’s reappraisal study (2018).

Thus, modeling was integrated into flipped classroom to increase the in-class time for intensive practice of the target English pronunciation skills in a way that allowed participants to master such skills by having learning materials (explanation and video demonstrations) outside the class followed by tutor-mentored performance and formative assessment in the class. Consequently, flipped modeling led the participants to skillfully acquire the target English pronunciation skills as revealed in the findings of Webb’s & Doman’s study (2016).

Discussion of qualitative data

This section discussed the qualitative data in light of the participants’ responses to the questions of the after-treatment open interviews. When asked about how motivating the in-class sessions were, participants revealed their keen enthusiasm and active engagement in what they learnt through flipped classroom rather than conventional lecturing. This was clearly noticed by the researcher during the six-week experimentation for two good reasons. First, the participants’ full class attendance showed how they were satisfied by being strictly punctual. Second, participants’ self-commitment and reliability were clearly shown as they worked hard individually, in pairs and in groups to master what they learnt and overcome their weaknesses when performing the target English pronunciation skills. Here, participants were propelled by their resilience and perseverance to resolve critical issues regarding their fossilized mispronunciation.

At the elapse of time during the six-week treatment, participants became rest assured and their fears of learning English vanished completely. This is in line with the results of the studies by Alsowat (2016); Zainuddin (2017); Hsieh, Wu, & Marek (2017); Lin & Hwang
(2018); and Saglam & Arslan (2018). The results of such studies proved the flipped classroom’s higher positive impact on higher education students’ involvement, satisfaction and attitudes towards English language learning.

When asked about managing the time of learning, participants pinpointed their ability of repeating what they learnt outside-class anytime and anywhere in a way that considered different their learning speed levels. As explained by Mehring (2016), participants managed to grasp the content in depth as self-pacing was established. By studying the content at home, the in-class time was saved for intensive practice and tutor-mentored performance. Hence, time management of learning played a vital role as participants were able to overcome the hurdles of their fossilized mispronunciation and develop their pronunciation skills accordingly.

As for the accessibility and availability of the learning materials, few participants could hardly get them online. However, those participants received the learning materials on a flash drive or DVD. All participants were allowed to have discussion and peer assessment either face-to-face or online via personal digital devices such as Laptop, Notebook, Tablet or PC. However, all participants referred to the great importance of the carefully selected and provided learning materials by claiming that learning the target pronunciation skill would not have occurred properly if it had not been for the supported PPT/Flash presentations, peer assessment and collaborative discussions.

Regarding the question about benefits gained from learning the target pronunciation skills before the class, participants indicated their continuous readiness for interactive and intensive performance of the pronunciation skills in the class. They became familiar with the skills before the class when they watched video demonstrations, studied the related materials and peer assessed their performance outside the class. This is in agreement with the results of Farrah’s study (2018) which investigated the higher education English majors’ attitudes towards the flipped classroom.

Moreover, participants gave two main reasons for the positive impact of integrating modeling into flipped classroom on their mastery learning. First, participants learnt the pronunciation skills via modeling at their own learning pace. Here, self-pacing was promoted while learning and practicing the target skills. Participants’ repetition of what they learnt was possible as they could go backwards and forwards while browsing the provided instructional multimedia-based materials. Second, involving peer assessment online or face-to-face into flipped classroom guaranteed
participants’ seriousness, reliability and remedial treatment of their fossilized mispronunciation as extrapolated from the results of Ng’s & Cheung’s study (2019). The peer assessment took place outside the class and, in turn, made them eligible for in-class tutor-mentored performance.

Finally, participants were questioned about the usefulness of integrating modeling into flipped classroom to develop their English pronunciation skills for their future careers in the field of tourism and hotels. All participants expressed their bad need of acquiring the basic English pronunciation skills. They stated that the proposed elementary pronunciation course could facilitate the opportunity for them to get a well-paid work in the sector of tourism and hotels. They pinpointed that they could practice the other language skills and make progress since their phonemic and phonological awareness were developed.

Consequently, integrating modeling into flipped classroom to present the proposed elementary English pronunciation course turned out to be beneficial to the students of tourism and hotels. Now, the fourth research question was answered.

Conclusions

As a proposed integrated pedagogy, flipped modeling had a high positive effect on developing the basic English pronunciation skills among the 1st year students at Ismailia Egoth High Institute for Tourism and Hotels. Thus, it can be concluded that integrating modeling into flipped classroom may be helpful in skill-type English language courses at high institutes of tourism and hotels since students’ future careers require technical practices & skill training in different areas of language learning in general and English pronunciation in particular.

Recommendations

Here are the recommendations of the present research:

1. In higher education, flipped classroom promotes and expands students’ participation and intensive practice as it inverts the conventional classroom learning to turn the university staff members’ role from a sage on the stage to a guide on the side.
2. Integrating modeling into flipped classroom is recommended when teaching practical skills as those in English pronunciation. Here, flipped classroom scaffolds students’ language learning by providing professional videos of skillful native speaker teachers to watch before the class.
3. Flipped classroom can be integrated with other teaching strategies or techniques such as modeling, peer assessment and discussions to make students well-prepared before the class and this, accordingly, maximizes their active engagement in learning, supports intensive practice and promotes in-class tutor-mentored performance.

4. When using flipped classroom, multimedia-based language learning materials should be carefully selected to guarantee students’ in-depth understanding and they should be well-organized in a way that allows for students’ self-pacing and self-autonomy.

Suggestions for possible further research

1. The Effect of Flipped Modeling on Developing the EFL Speaking Skills among students at the Faculty of Tourism and Hotels.
2. Integrating Modeling into Flipped Classroom for enhancing the EFL speaking skills among English majors at the Faculty of Arts and Humanities.
3. The Impact of Flipped Modeling on the Teaching Skills among the Student Teachers of English at the Faculty of Education.
4. A Proposed Flipped Modeling Course for Developing EFL Public Speaking Skills among Students at the Faculty of Commerce.
5. Flipped Peer Tutoring Tasks for Promoting the English Majors’ Writing Skills at the Faculty of Arts and Humanities.
6. Integrating Peer Assessment into Flipped Classroom for Improving the English Majors’ Listening Skills at the Faculty of Education.
References


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