

# The Flipped Classroom: Learning Revolution to Improve Students' English Speaking Skills

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## ABSTRACT

The flipped classroom is one of the revolutions in education that utilizes internet technology in learning. Students are required to access and study material online at home before face-to-face learning in the classroom. In class, the teacher focuses on the students to be directly involved in their English speaking skills. This study aims to develop learning media based on the flipped classroom that was feasible and effectively used to improve students' English speaking skills. The research and development (R&D) was the type of this study. The procedure and design are from the Gall, Gall & Borg, and Dick, Carey & Carey models. Based on the results of expert validation, trial evaluations, and student achievement tests. Thus, the learning media based on the flipped classroom was feasible and effectively used to improve students' English speaking skills.

**Keywords:** *research and development, instructional media, blended learning, flipped classroom, English as a foreign language, speaking skills.*

## 1. INTRODUCTION

The use of technology and the internet has a substantial impact on education, especially in learning activities. Teachers and students can look for subject matter from anywhere, anytime, and anyone [1], even predictably in the future, the education system and learning activities in the classroom between teachers and students will be maximized by using an online platform [2].

Besides technology and the internet, mastery of English also has a high-priority impact on education. In addition to academic needs, teaching English has become very important to study and is a top priority throughout the world [3]. The four language skills, students' speaking skills received less serious attention during the learning process in class. As a result, students' speaking ability in English is very incompetent. This situation makes students less confident to communicate using English [4].

The level of proficiency in using English Indonesian people still have relatively low English skills. Indonesia is ranked 74th out of 100 countries listed [5]. The low ability of Indonesian people to speak English is not without reason that learning English in Indonesia is still not done optimally and is still far behind other countries. Learning English has become a compulsory subject at

almost all levels of school. However, Indonesian people's English proficiency is still far from expectations. The factors that influence the students' low English proficiency are that students do not practice much and opportunity to participate in the learning process in class. The learning process is almost totally used to explain the material. Students cannot practice their speaking optimally because the time for face-to-face activities in the classroom is limited and teacher-centered.

In today's digital age, the traditional teacher-centered learning model is no longer suitable for implementation in daily learning activities [6]. In the future, the learning process is more modern and student-centered by utilizing existing internet technology to access teaching materials from anywhere, anytime, with anyone, and anything by online or e-learning. One of the learning models is the flipped classroom which is included in the blended learning types of rotation model.

The flipped classroom is one of the learning strategies discussed in education because it can increase learning outcomes at all levels from elementary to university [7]. The flipped classroom is also a hot topic in foreign language teaching [8]. Flipped classroom provides teaching outside by watching videos online and preparing additional exercises and activities in face-to-face learning [9].

The flipped classroom is a learning model in which the teacher gives homework to learning the topics that had gave through digital media in the form of videos, e-books, as starting material, and preparation for face-to-face activities in class [10]. Flipped classroom facilitates students to learn than delivering material directly in class. Teachers pay more attention to student involvement, initiative, and student social interaction during learning activities [11]. The use of learning time in the classroom is totally for discussion, collaboration, or group assignments to increase teacher and student interactions to be more active.

The current learning revolution is purposeful on student activity and interaction in the classroom, significantly improving students' English speaking skills. Instead of asking students to listen to the teacher's explanation of the learning material, it would be much better if everything was recorded in the form of a video and asked students to watch the video before attending face-to-face lessons in class. Students can repeat the video many times in parts that they do not understand. It's also can help the teacher's problem in overcoming the limited time to explain the material.

Therefore, the learning model is called the flipped classroom learning model [10]. Learning activities in class will be more student-centered and focus on training students' speaking skills in learning English.

## **2. REVIEW OF THE LITERATURE**

### ***1.1. Speaking Skills***

Speaking is fundamental communication, so it becomes the most major skill among other language skills [12]. This argument clearly states that speaking is the most advanced skill compared to other fundamental skills such as listening, reading, and writing. Speaking connects someone with other people in changing information, even some people think someone is good at English if the boy or girl is good at speak. The statement is like a notation that speaking skills are the primary and most crucial among other skills.

Speaking is a process of obtaining information to convey ideas between speakers and listeners orally [13]. Speaking is an interactive communication process that involves the speaker and the listener [14]. There are several indicators in speaking English, namely accent, grammar, vocabulary, fluency, and comprehension [15].

### ***1.2. Flipped Classroom***

The theory of the flipped classroom originated at Harvard University in the early 1990s when Eric Mazur uploaded learning material to the computer to guide his physics class students who were then outside the classroom. The concept of the flipped classroom is that

what is done in class is now done at home and what is done at home is now done in class [16]. The flipped classroom is a technology that supports pedagogy into two components, first utilizing computers outside the class (online learning) with learning videos, and the second is interactive learning activities in the class (offline learning) [17]. Furthermore, [18] flipped classrooms offer students learning using interactive technologies, such as watching videos outside the classroom and preparing students to implement active learning strategies in class.

#### ***1.2.1. Flipped Classroom and Taxonomy Bloom***

In terms of Bloom's Taxonomy which has been revised [19], it shows that learning with the flipped classroom model where students carry out activities at the Lower Order Thinking Skills level outside the class namely remembering and understanding and focusing on learning activities at the Higher Order Thinking Skills level in class namely applying, analyzing, evaluating, and creating.

#### ***1.2.2 Flipped Classroom and Connectivism***

Behaviorism, cognitivism, and constructivism are the three common major theories in learning. However, those theories were developed without the influence of technology in the learning process. Now, technology has become something fundamental in everyday life. In the last two decades, technology has redefined how we live, communicate and learn. If the development of information used to be very slow, then now everything has changed. We can get all the information we need quickly and easily [20].

Connectivism is also related to the flipped classroom because the main principle of connectivism is a process of connecting multiple sources of information and facilitating continuous learning. By connectivism, the use of technology is allowed to become a part of students' internal learning process and to ensure that knowledge in the 21st century will be conveyed properly [21].

#### ***1.3. Video (audiovisual)***

The media used in flipped classroom-based is a video in the form of audiovisual. [22] Video is an audiovisual media that displays images and sound. When compared with picture media only, the use of instructional video media can improve student learning outcomes. Audiovisual material can provide various benefits provided by the teacher plays an active role in the learning process [23]. The teacher-student relationship remains a principal part of today's modern education system. The teacher explains the material by using media so that the learning objectives can be realized.

### 3. METHODS

The research and development (R&D) was the type of this study with mixed-method research. The procedure and design were adapted from the Gall, Gall & Borg, and Dick, Carey & Carey models. The feasibility trial was validated by subject matter expert, media expert, design expert, practitioners expert, one-to-one evaluation, small group evaluation, and field trial evaluation, while for the effectiveness trial design was used quasi-experiment with nonequivalent comparison group design. Techniques of collecting the data were carried out by interviews, questionnaires, observations, achievement tests, and audiovisual materials (documentation).

#### 3.1.1. Analysis Techniques for Feasibility Test

The product feasibility test in this study was carried out to obtain information about whether or not the flipped classroom-based learning video media product was developed, through the results of a questionnaire assessment distributed to learning experts (materials, media, design, and practitioners), one-to-one evaluation, small group evaluation, and field trial evaluation. The results of the respondent's validation were then measured using the Likert scale with the assessment criteria in Table 1 below [24].

**Table 1.** Feasibility Test Analysis Technique Interpretation

Score	Interpretation	Percentage
5	Strongly Agree	$85\% \leq X \leq 100\%$
4	Agree	$75\% \leq X < 85\%$
3	Neutral	$65\% \leq X < 75\%$
2	Disagree	$55\% \leq X < 65\%$
1	Strongly Disagree	$0\% \leq X < 55\%$

Furthermore, the interpretation of the assessment accomplishes using descriptive statistics. [24] Answer scores from the range 1 to 5 were tabulated and the average score was calculated into four groups.

**Table 2.** Feasibility Test Assessment Interpretation

Mean Score	Interpretation
4,17 – 5,00	Very Feasible
3,33 – 4,16	Feasible
2,50 – 3,32	Less Feasible
1,00 – 2,49	Not Feasible

#### 3.1.2. Analysis Techniques for Effectiveness Test

To measure students' English speaking skills use an weighting table of five components, namely accent, grammar, vocabulary, fluency, and comprehension. The assessment of each component is arranged periodically

from 1 to 6. 1 is in the extremely very low level while 6 is in the extremely very high level. The results of students' speaking skills in English were analyzed based on several criteria from Arthur Hughes [25] in Table 3 below.

**Table 3.** Weighting Table for Speaking

Aspect	Weighting Table						
	1	2	3	4	5	6	(A)
Accent	0	1	2	2	3	4	---
Grammar	6	12	18	24	30	36	---
Vocabulary	4	8	12	16	20	24	---
Fluency	2	4	6	8	10	12	---
Comprehension	4	3	12	15	19	23	---

### 4. RESULTS AND DISCUSSION

This research and development were accomplished through four stages, namely: a) needs assessment product, b) the design and development product, c) the feasibility trials, and d) the effectiveness trials.

#### 4.1.1. The Result of Needs Assessment

The needs assessment was accomplished by distributing a questionnaire link via WhatsApp to respondents whose filling was done online via a google form involving 4 teachers and 24 students of SMP Panca Budi Medan who were randomly selected (Table 4).

**Table 4.** The Result of Needs Assessment

Respondent	Percentage	Criteria	Mean
Teachers	85.91%	Strongly Agree	4.30
Students	81.06%	Agree	4.05

The results of the needs assessment of teachers and students stated that the media in the form of the video was needed to improve students' English speaking skills. The needs assessment of students shows that 81.06% agree with an average score of 4.05, and the needs assessment of teachers 85.91% strongly agree with an average score of 4.30. Therefore, the development of English videos can help students' speaking skills in learning English. [26] Online video is fundamental in learning English and is effectively used to improve students' English speaking skills.

English videos also help students practice speaking with pronunciation, vocabulary well and correctly. Students can appear confident, bolder, and less nervous when speaking. In addition, students' motivation and enthusiasm increase compared to students who did not use video [27]. YouTube can improve students' English speaking skills in terms of linguistic aspects such as fluency, vocabulary, pronunciation, grammar, and content [28].

### 4.1.2. The Result of Product Design

After collecting a needs assessment about the use of English learning media by teachers and students, the next step is to design English media based on flipped classrooms for feasibility trial with the validation of learning experts by subject matter or material expert, media, design, practitioners, and evaluation trials (one-on-one evaluation, small group evaluation, and field trial evaluation). The design of English media based on flipped classroom that were developed was illustrated in the image below.

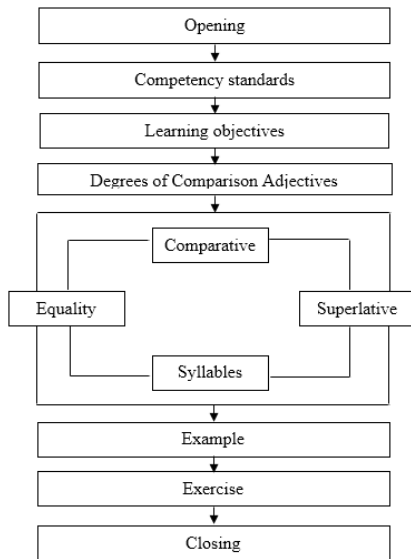


Figure 1 Design of English Learning Media

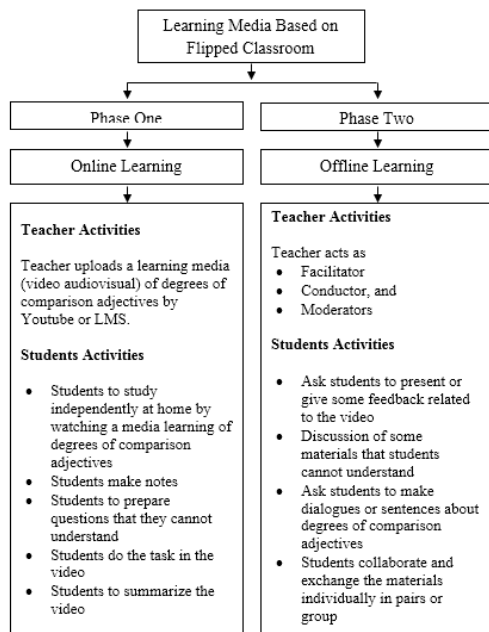


Figure 2 Design of English Learning Media Based on Flipped Classroom

### 4.1.3. The Result of Feasibility Trials

The results of the feasibility test of the English learning media were carried out step by step. Due to the limited time and activities of the researcher or respondent, the validation and evaluation process is offline and online. An offline validation if they can meet directly while an online if they cannot meet then the assessment is carried out by questionnaire link via WhatsApp to respondents and filled out online by using google forms.

Table 5. The Result of Validation Expert

Expert	Percentage	Criteria	Mean
Subject matter	82.11%	Feasible	4.11
Media	81.18%	Feasible	4.06
Design	76.00%	Feasible	3.80
Practitioner	94.33%	Very Feasible	4.72

The results from each learning expert validation show that the English video media developed already had the criteria that are feasible to use in students' English learning and can be tested in the field to determine the feasibility of the media by students as users.

Table 6. The Result of Evaluation Trials

Evaluation	Percentage	Criteria	Mean
One-to-one	98.86%	Very Feasible	4.94
Small group	88.00%	Very Feasible	4.40
Field trials	91.55%	Very Feasible	4.58

The results acceptance of media users shows that the video media product has very feasible criteria or can be received very well by students and has the acceptance standard very feasible for use in English. By looking at the guidelines and assessment criteria [24], it can be concluded that English learning video media are feasible to use in English language learning.

### 4.1.4. The Result of Effectiveness Trials

The effectiveness trial was used to obtain information about students' learning outcomes of English speaking skills using flipped classroom-based learning media and to find out whether or not the media was effective in improving students' English speaking skills. Quasi Experiment with Nonequivalent Comparison Group Design was used in this study. The subjects of this study involved 49 students of class VIII SMP Panca Budi Medan, namely the experimental group totaling 25 students from class VIII 1 (learning media based on flipped classroom) control group totaling 24 students from class VIII 4 (learning media base on direct instruction).

**Table 7.** The Result of Students' English Speaking

Group	Mean
Control group	80.70
Experimental group	86.44

Based on the result of the learning outcomes of the experimental group showed that flipped classrooms were effectively used to improve students' English speaking skills. There was a significant difference in the learning outcomes of students' English speaking skills taught by using flipped classroom (experimental group) and direct instruction (control group) at the 0.05 or 5% significance level. The result of the t-test showed that the posttest of the experimental and control group showed that  $t_{calc} > t_{table}$  was  $3.086 > 2.012$ . The results of the average score of the posttest experimental group were higher 86.44 than the control group 80.70.

The use of flipped classrooms in learning English is effectively used to improve students' speaking skills at the EFL and ESL levels. The student learning outcomes by using the flipped classroom was higher than direct instruction [29].

Students who learn with the flipped classroom have a positive influence on improving their English speaking skills. They also become more independent and collaborative because the flipped classroom gives students the freedom to study material at home independently before face-to-face learning. In class, students will spend more time collaborating with friends or teachers so that learning activities become more productive. [30] The use of flipped classrooms makes it easier for students to learn English grammar, increases students' interest in using multimedia technology, makes students learn independently, and provides opportunities for students to collaborate.

Blended learning with the flipped classroom type can improve language learning, especially students' speaking skills in learning English [31]. The flipped classroom can increase students' motivation and involvement in class, [32] students able to create a better and effective learning environment in improving student learning outcomes in learning English as a foreign language.

## 5. CONCLUSION

The flipped classroom is one of the alternatives in education and the current learning revolution that utilizes internet technology in the learning process. The flipped classrooms were feasible in learning English and effectively used to improve students' English speaking skills. The flipped classroom increases student interest and motivation, gave students opportunities to study independently at home before face-to-face learning in class. Students and teachers become proactive, interact with each other and collaborate, so that learning activities

in the classroom become more effective, efficient, and student-centered learning. Teachers and students can spend more time discussing each other and collaborating to complete learning materials at the same time.

## AUTHORS' CONTRIBUTIONS

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by Etika Maeda Sohayu, Julaga Situmorang, and Hamonangan Tambunan. The first draft of the manuscript was written by Etika Maeda Sohayu and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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## REFERENCES

- [1] Uhomoihi, J. O. Implementing e-learning in Northern Ireland: Prospects and challenges. *Campus-Wide Information Systems*, 2006, 23 (1), 4-14.
- [2] Goyal, S. E-Learning: Future of Education, *Journal of Education and Learning*. 2012, Vol.6 (2) pp. 239-242.
- [3] Chen Hsieh, J.S., Wu, W.C.V., & Marek, M.W. Using the flipped classroom to enhance EFL learning. *Computer Assisted Language Learning*, 2017, 30(1-2), 1-21.
- [4] Mundhe, G. B. Teaching Receptive and Productive Language Skills. *An International Journal in English*, 2015, 1(2), 1-6.
- [5] English Proficiency Index. Indeks Kecakapan Bahasa Inggris EF. 2020. Retrieved from <https://www.ef.com/wwen/epi/>
- [6] Danker, B. Using flipped classroom approach to explore deep learning in large classrooms. *IAFOR Journal of Education*, 2015, 3(1), 171-186.
- [7] Kurihara, Y. Flipped Classroom: Effects on Education for the Case of Economics. *Journal of Education and e-Learning Research*, 2016, 3(2): 65-71.

- [8] Wang, J., An, N., & Wright, C. Enhancing beginner learners' oral proficiency in a flipped Chinese foreign language classroom. *Computer Assisted Language Learning*, 2018, 31(5–6), 490–521.
- [9] Han, Y.J. Successfully flipping the ESL classroom for learner autonomy. *NYS TESOL Journal*, 2015, 2(1), 98–109.
- [10] Herreid, C. F., & Schiller, N. A. Case studies and the flipped classroom. *Journal of College Science Teaching*, 2013, 42(5), 62-66.
- [11] McCombs, B., & Miller, L. Learner centered classroom practices and assesment. Thousand oaks, CA: Corwin, 2007.
- [12] Powers, D. E. The case for a comprehensive, four-skills assessment of English-language proficiency. *R & D Connections*, 2010, 14, 1-12.
- [13] Brown, H. D. *Teaching by principles: An interactive approach to language pedagogy*, second edition. New York: Longman, 2001.
- [14] Hui, L. Improving students' English speaking skill through content-based instruction. Unpublished master's thesis). Sebeles Maret University, Surakarta, 2011.
- [15] Hughes, A. *Testing for Language Teachers* (2nd ed) Cambridge: Cambridge University Press, 2003.
- [16] Bergmann, J. & Sams, A. *Flip Your Classroom: Reach Every Student in Every Class Every Day*. Washington, DC: International Society for Technology in Education, 2012.
- [17] Lo, C. K., & Hew, K. F. A critical review of flipped classroom challenges in K-12 education: Possible solutions and recommendations for future research. *Research and practice in technology enhanced learning*, 2017, 12(1), 4.
- [18] Roach, T. Student perceptions toward flipped classroom: New methods to increase interaction and active learning in economics. *International Review of Economics Education*, 2014, 17,74-84.
- [19] Anderson, L.W. (Ed.), Krathwohl, D.R. (Ed.), Airasian, P.W., Cruikshank, K.A., Mayer, R.E., Pintrich, P.R., Raths, J., & Wittrock, M.C. *A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of Educational Objectives* (Complete edition). New York: Longman, 2001.
- [20] Siemens, G. Connectivisme: A learning theory for digital age. *International journal of Instructional Technology and Distance Learning*, 2005.
- [21] Abik, M., Ajhoun, R., & Ensias, L. Impact of technological advancement on pedagogy. *Turkish Online Journal of Distance Education*, 2012, 13(1), 224-237.
- [22] Mayer, R. E. *Multimedia learning* (2nd edition). New York: Cambridge University Press, 2009.
- [23] Dale, E. *Audio-visual methods in teaching*, revised edition. New York: A Holt-Dryden Book, Henry Holt and Company, 1954.
- [24] Sriadhi, S. *Instrumen Penilaian Multimedia Pembelajaran*. Unimed. Medan, 2018.
- [25] Hughes, A. (2003). *Testing for Language Teachers* (2nd ed) Cambridge: Cambridge University Press.
- [26] Yükselir, C., & Kömür, S. Using Online Videos to Improve Speaking Abilities of EFL Learners. *Online Submission*, 2017, 3(5), 255-266.
- [27] Puspitasari, D. Improving Students' speaking Skills By Using Video Clips For Seventh Grade Students' of Smp N 02 Jogonalan Klaten In Academic Year 2018/2019 (Doctoral dissertation, Universitas Ahmad Dahlan), 2019.
- [28] Syafiq, A. N., Rahmawati, A., Anwari, A., & Oktaviana, T. Increasing Speaking Skill through YouTube Video as English Learning Material during Online Learning in Pandemic Covid-19. *Elsya: Journal of English Language Studies*, 2012, 3(1), 50-55.
- [29] Çetin Köroğlu, Z., & Çakır, A. Implementation of flipped instruction in language classrooms: An alternative way to develop speaking skills of pre-service English language teachers. *International Journal of Education and Development Using Information and Communication Technology*, 2017, 13(2), 42-55.
- [30] Philippines, E. C., & Tan, M. J. Effectiveness of Using a Flipped Classroom in Improving English Grammar Proficiency. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 2020, 51(2), 45-57.
- [31] Tran, T. T. Q. Flipped model for improving students' English speaking performance. *Can Tho University Journal of Science*, 2018, 54(2), 90-97.
- [32] Namaziandost, E., Ziafar, M., & Neisi, L. Students' attitudes toward flipped classroom model: Focusing on Iranian advanced EFL learners. *English Language Teaching and Research Journal (ELTAR-J)*, 2020, 2(1), 16-26.