

Integrating Basic Translation Skills and 21st Century Skills in Translation Course

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Abstract. Integrating Basic Translation Skills and Twenty-first Century Skills with collaborative i-tools Moodle and SmartCAT is one of the greatest challenges in Translation courses. Product validation is carried out by translation, Flipped Learning, instructional design and Learning Management System experts. To obtain expert consensus regarding the validity of the developed hypothetical model, the Delphi technique is used, namely the conclusion of the results of various expert opinions that are collected, searched for points of similarity, and summarized so that it becomes a common consensus. The consensus of experts includes the following aspects: (1) identification of problems through needs analysis- (2) priority determination, namely determining the type and manufacture of the product- (3) determining program objectives, and (4) determining solutions to solve problems. The next stage is to try it out on 10 lecturers and 60 students in the Translation course in the English Education Study Program. This trial was used to determine the impact of Flipped Learning and the subject's perception of the application of the product in a lecture activity. The conclusion of the consensus results of the validity of the experts and the perception of the subject in this study were analyzed by the percentage method, while the determination of the impact of learning with the average difference test of the subject's value. This research is expected to have a positive impact on Moodle-based Flipped Learning through the developed product, which can significantly improve students' Basic Translation Skills and Twenty-First Century Skills.

Keywords: Basic Translation Skills, Learning Management Systems-Moodle, Flipped Learning Model, General English Language Proficiency

1 Introduction

1.1 Background

During the global pandemic COVID-19, the teaching-learning process has changed 180° from conventional class into a virtual class whether it is synchronous or a synchronous learning. Learning management systems (LMS) is initiated a few months just after the global pandemic COVID-19 had started to spread in March 2020. Totally, the education institutions have to stop face-to face learning and change it into a virtual one. The LMSs are suddenly employed by many educational institutions in order to support teaching-learning process. This includes the use of digital technology in teaching, such as using Google forms for online test, ZOOM Cloud meeting for group presentation, Padlet for project display. It is important to find solutions in order to run an effective virtual classroom in delivering materials to students so this will improve the quality of teaching-learning process and learning outcomes. This study focuses on LMS-

based Flipped Learning Model with the aim of increasing Basic Translation Skills and 21st Century Skills and engaging students in active and deep learning.

There are so many free digital platforms in order to support smart learning which uses modern technology with the aim of combining the constructivist and ubiquitous learning. This model of learning is a student-centered platform by adapting technology usage with educational interests.

Cheng (2017) explained that the flipped classroom protocol included a pre-class task given one week prior to class, consisting of viewing videos on Blackboard, completing embedded exercises and reading the in-class design plan. Every pre-class task was focused on specific teaching objectives, and was designed and adapted to what students had learned previously. Video content was not repeated during class time. In-class activities were arranged in considerable detail, and some special classroom events were designed especially to engage and stimulate student interest and learning. Finally, a quiz was administered at the end of class, typically covering the relevant material learned in that period. Quiz question formats varied and included multiple-choice and open-ended questions. Every student was encouraged to participate in the activities equally. It should be noted that the number of contact hours was the same for both flipped classroom participants and non-participants. The after-class tasks included Blackboard quizzes with items that were extracted from the histology bank and different from those in the final examination. Online questions were also assigned in the discussion forum based on covered teaching materials. All students were required to actively participate in online discussions.

Bergmann (2012) explained that most important, the flipped classroom model is student-centered. Each student is responsible for coming to class with a basic understanding of the material so that she or he can fully participate and engage in class discussion. Content acquisition then is self-paced and self-guided, enabling students to control when and how much content they view. To facilitate learning, instructors guide students to the content, organize interactive experiences, challenge students to think creatively, and provide expert insight and feedback. Rich, open-ended experiences within the classroom equip students for success by fostering critical cognitive development and promoting innovation through collaboration. McLaughlin (2014) explained that flipped learning scenario is in-class active learning strategies that enable lecturer to improve students' active learning and develop students' critical thinking skills; fully engage students in the active learning process; stimulate students' higher order thinking skills through the use of creative technologies and applied active learning.

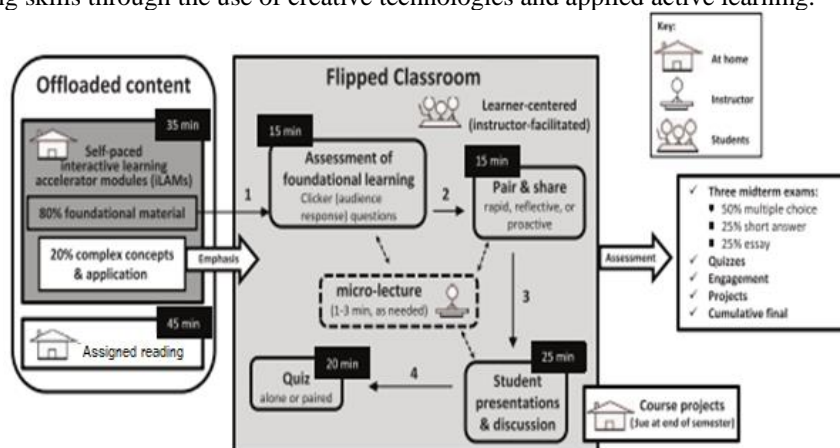


Fig. 1 Flipped Learning Scenario

The scenario of flipped learning model is consisted of 3 main activities: (1) Offloaded content, (2) interactive content, (3) collaborative content. Offloaded content is a pre-class attached material in the moodle course page so that the students can learn the material through their smart mobile phone a week before. In the pre-class activities, there are two main activities, they are (1) Interactive Self-Paced online content, (2) Assigned Reading. In-class activities are consisted of 4 active learning exercises, they are (1) Assessment of Foundational Learning, (2) Pair and Share, (3) Student Presentations and Discussion, (4) Quiz. And the last is Collaborative content. Students translate assigned text using SmartCAT. SmartCAT is an online platform that is used by professional translators in handling text during the process of translation. This platform enables them to collaborate with other translators in only one web-based tool.

Moodle-based flipped learning model has generated considerable interest in higher education in recent years, some experimental research on this study is still limited. According to Thai (2017), Lam (2019), Elliott (2014), Bhagat (2016), McCredden (2017), Nouri (2016), G. Wang, Zhao, Guo, & Li (2019), McLaughlin et al. (2014), Tan, Yue, & Fu, (2017), Lai & Hwang (2016), flipped learning is well-organized learning mode that makes teaching-learning practice and interaction effective among teachers and students in digital classroom and traditional classroom. The novelty of this study is promoting moodle with flipped learning mode in order to design learning scenario by integrating basic translation skills and twenty-first century skills on the translation handbook. Most research emphasized in using moodle only but in this research moodle and SmartCAT are connected to enable college students collaboratively handle the translation text together with their group.

1.2 Research objectives

This research is a research and development method that has some general objectives:

1. To design Moodle-based flipped learning model to increase basic translation skills and twenty-first century skills for university students;
2. To measure the level of effectivity of moodle-based flipped learning model to increase basic translation skills and twenty-first century skills towards university students.

1.3 Literature Review

Learning Management Systems

E-learning has an important role in this global pandemic COVID-19 which started from March 2019 until 2020 that hopefully ends soon. SMART Learning gives students and academics a vast opportunity to upgrade and enrich their knowledge through digital platforms and software with which teaching and learning processes runs in virtual learning context at universities and other educational institutions. Learning Management Systems (LMS) is an online educational platform with the aim of enhancing teaching and learning processes. It facilitates both teachers and students for a direct assessment of group discussion and evaluation test that can be accessed anywhere and anytime without time and space limitations. LMSs enable them to host a wide range of online resources, videos and other tools such as message boards.

Alizadeh (2019) mentioned that LMSs brought many educational benefits for both the students and the professors in learning interaction and learning assessment. They expressed that the digital platform (LMSs) improved their learning, benefitted the professors and upgraded their mutual interaction with the professors. LMSs offer a wonderful file manager, i.e. a collection of students' homework and assignment at anytime and anywhere, so that the professors could check the home work and assignment more easily and simply. The LMSs which

are mentioned as a web-based learning construction that delivers and manages course information, learning assessment, learning data collection, learning process monitoring, progress chart has some fundamental features, such as assignment submission, announcement or information, discussions, material and link sharing, content updating, resources and forums (Chang et al., 2017). According to Kasim & Khalid (2016), LMS can be classified into three: 1) instruction tools; 2) communication tools; 3) productivity tools.

1. Instruction tools is a learning tool which creates activities and assessment for students. These tools facilitate quizzes, online presentation tools and assignments. A quiz module would offer many functions like a question database, a response facility, a marking scheme, and a means of facilitating students' performance. While the online presentation tools make students possible to upload presentation file or send links of presentation video from YouTube to the LMS. The lecturers assign the students the assignment on the LMS and the students could submit or upload the assignment any time till the due date of submission.
2. Communication tools enables the students and lecturers to communicate in the chat box. The most common information broadcasted to students is announcement which shows important notes regarding the course, such as latest news and upcoming activities to all of the students. In the discussion forum, both lecturers and students could post and reply in the comment box and read comments from other users.
3. Productivity tools in LMS include file manager, calendars, surveys, graphics of participation, score and attendance. The File Management Systems enable lecturers and students to upload and download files from any computer that is connected to internet. And other management tools in LMS are a collection of information on how much students access the LMS and achieve their own performance. Some LMSs allow students to see their final report of the course, such as grades for each assignment, quiz and exam.

Table 1. Three smart tools of LMS

LMS		
Instruction Tools	Communication Tools	Productivity Tools
<p><i>Function:</i> Create activities and learning tools</p>	<p><i>Function:</i> Enable lecturers and students to communicate each other and to post the important notes regarding the course.</p>	<p><i>Function:</i> Enable lecturers and students to upload and download files and directly access the final report of the course, such as grades and performances.</p>
<p><i>Example:</i> 1. Links of Pre-test 2. Introduction Videos 3. Discussions 4. Assignments 5. Presentation Video 6. Quizzes 7. Online Resources 8. Surveys regarding the course 9. Links of Post-test</p>	<p><i>Example:</i> 1. Email (Chat Room) 2. Comments 3. Announcements</p>	<p><i>Example:</i> 1. File Manager the files for submission of discussions and assignments 2. Final Report Marks of every discussion and assignment 3. Graphics, Graphics of students' grades and performances</p>

Wang & Chen (2009) mentioned that there are two kinds of LMS, they are 1) Asynchronous LMS (ALMS) and 2) Synchronous LMS (SLMS). ALMS (e.g. blackboard/webCT, Moodle, Google Classroom, Talent LMS, Schoology) provides functionalities mainly to support asynchronous learning activities and resources such as learning materials, discussion forums, monthly assessment, group emailing and ZOOM cloud links for synchronous learning. SLMS, such as 3C (Collaborative Cyber Community) that integrates both synchronous and asynchronous tools to support a distance learning education (DLE). This platform facilitates synchronous real-time interaction and collaboration using conferencing tools such as synchronous document sharing, collaborative whiteboard, text chat, audio and video communication.

Table 2. Main Features offered by Learning Management Systems (LMS)

LMS	Material Management	Video Posting	Discussion Forum	Task Forum	Audio Conference	Video Conference	Text Chat	Material and Document Sharing
3C	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Blackboard/ WebCT	Yes	Yes	Yes	Yes	No	No	Yes	No
Moodle	Yes	Yes	Yes	Yes	No	No	Yes	No
Google Classroom	Yes	Yes	Yes	Yes	No	No	Yes	No
Talent LMS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Schoology	Yes	Yes	Yes	Yes	No	No	Yes	No
Edmodo	Yes	Yes	Yes	Yes	No	No	Yes	No

Based on the table above, mobile learning management systems makes online learning easy to access and effective with mobile-friendly learning management systems. Today, 80 percent of Indonesians own a smartphone of some kind, and 94 percent of mobile users communicate through social medias compared to 36 percent of mobile users who earn money, learn new things, and do learning and productive activities. Horvat, Dobrota, Krsmanovic, & Cudanov (2015) explain that flipped learning model is a flexible approach to course design that supports the flipping of different times and places for learning, offering some of the conveniences of fully online courses without the complete loss of face-to-face contact. The result is a potentially more robust educational experience than either traditional or fully online learning are able to offer. It has been described that such a successful flipped learning model, consisting of an initial face-to-face meeting, followed by weekly online assessments, synchronous chat, asynchronous discussions, e-mail, and a final face-to-face meeting with a proctored final examination. There are three key factors regarding mobile learning management systems: 1) the instructors, technology (mobile-friendly application) and interactivity; 2) several Moodle Interactive Learning Activities (MILA) modified with comments and feedbacks from other course users, course management issues, and students' grade report; 3) course websites or course management systems. Mobile LMS is easy to be accessed and more effectively facilitate students' learning, as it is showed in the table below.

Table 3. Time spent using Moodle

	Total	%
Each or every second day	12	6
Several times a week	168	84
Several times a month	10	5
Just before the exam	4	2
Never or too busy with work	6	3

O’Sullivan, Krewer, & Frankl (2017) explained that social software has improved the way students and lecturers share information, such as Facebook, Twitter, Instagram and WhatsApp. They acquire and share the information asynchronously for academic purposes and other non-academic purposes. But social software is sometimes difficult for delivering a course, especially grading systems, participation graphics, and course management. LMS has been shown to offer some potential to overcome social loafing in Moodle collaborative activity by facilitating students and instructors with transparent usage statistics and rich data analytics to verify levels of student interactions and individual and group contributions. Social interaction among students and instructors is fundamental to cognition and learning process, thus knowledge, concepts, meanings, roles and relationships are constructed and naturally developed through interacting and communicating with others.

Alfadly (2013) mentioned that the main objectives of online learning management systems (LMSs) in organizations are to simplify the administration of learning programs and support communication among colleagues. An effective LMS helps to target, deliver, track, analyze, and report the learning “condition” within the organization. University principals and educational administrators often need to decide which system will best suit their specific needs and open channels for communication among the staff. Some researchers have pointed out the prospective benefits of LMS, and many of them automatically keep logs of user activity, both for research and to design practical online learning applications. The present study continues this work, seeking to explore whether the interactivity among teachers can be measured via logs of their activities within LMS. Yuen, Cheng, & Chan (2019) explained that the implementation of flipped learning model through LMS increases user satisfaction and high engagement for both online and offline class. It means that all students from secondary school (SMP-SMA) to university must have LMS whether in this pandemic period and in normal period.

Joo, Kim, & Kim (2016) stated that mobile learning (m-learning) offers a lot of opportunities to enhance students’ learning experience and learning acceleration both in formal and informal educational context. The learning flexibility offered by mobile devices makes learning portable and spontaneous of which students experienced more personalized learning, situated learning in a meaningful context and authentic learning with real-world problems. Williams van Rooij (2012) mentioned that mobile LMS enhanced learning experience by enabling collaboration, the development of a sense of community, and the inclusion of constructivist strategies of collaborative learning into the instructional environment.

Basic Translation Skills

Translation memory (TM) is one tool that allows translators to achieve greater throughput during the translation process via the reuse, reference, and modification of previously human-translated material to complete new translation projects. (Mellinger, 2017)

Basic translation skills can be attained in a number of methods:

- Practice-based strategies (tasks, projects, portfolios)
- Collaborative classroom and homework practice
- Situated (vocational) approaches to translation
- Technology-intensive input
- A curriculum-integrated module on professional development
- An annual school panel with invited professionals – preferably alumni
- A work placement scheme
- An innovative approach to final dissertation formats, including an alternative situated, situated, purely professional option. (Calvo, 2015) .

This study suggests four main macro skills for any translator who is new in the field of translation, they are reading comprehension, researching, analytical and composing skills. These macro skills contain many sub or micro skills that need to be learnt. These skills are the results

of a needs assessment analysis which was designed by a group linguistic, translation, TEFL, and course design experts in order to consider which one is to be the basic translation skills.

Reading Comprehension Skills

Reading a text is an act of translation whether it is in foreign language or in mother language. When reading a text, some of the words are familiar with and some others are not, but it can be understood by studying the context, this is what we called mental language. The mental language is syntactical nature when we try to reconstruct the possible meaning of a sentence, i.e. the relation among its elements. In contrast, it is a semantic nature when it identifies the relevant areas within the semantic field of any single word or sentence; and it is a pragmatic nature when it deals with logical match of possible meaning to the whole context and to the verbal co-text. Quezada and Westmacott (2019) explained that the reading comprehension skills were correlated with overall academic grades, a general measure of academic performance, which include a variety of courses from that translation training programme. Reading is a product of decoding which is categorized as the process of translating text and language comprehension skills (Nilsen and Monsrud, 2015).

Students-lecturers and novice translators are therefore advised to learn the following basic reading comprehension skills:

1. Read for a gist and main ideas
2. Read for details
3. Identify the meaning of new words and expressions by using one or more of structural analysis clues; prefixes, suffixes, roots, word order, punctuation, sentence pattern.
4. Identify the meaning of new words and expressions by using one or more of structural analysis devices; synonyms, antonyms, examples.
5. Identify the style of the writer; whether it is a literary, scientific, technical, informative, persuasive, argumentative text.
6. Identify the language level used in the text; standard, slang, religious.
7. Identify cultural references in the choice of words in the text.

Researching Skills

When doing the translation, we should refer to a dictionary but there are so many dictionaries that the translator should refer to, such as a bilingual dictionary, a dictionary on ahistorical basis, dictionaries of current English, dictionaries of idioms, specialized dictionaries (dictionaries of common errors, dictionaries of idiomatic usage, dictionaries of slang, dictionaries of law and medical terminology), encyclopedic dictionaries, dictionaries of neologisms, miscellaneous dictionaries, and monolingual dictionaries. This long list of different kinds of dictionaries suggests that it is not a single dictionary that the translator is supposed to refer to and the original text to be translated.

Irwanto et al. (2017) explained that analytical thinking skills involved a series of mental process in finding solutions to many problems. Therefore, many translators used handy-tools to support their translation project. Novice translators as well as student-translators are encouraged to use the following basic researching skills:

1. Use bilingual dictionaries for looking up meanings of new words
2. Use monolingual dictionaries to check the usage of the new words in the source language and in the target language
3. Use related encyclopedias and glossary lists for specialized terms
4. Use software dictionaries if necessary and if available
5. Use the internet for researching purposes

6. Refer to specialized magazines and journals to help familiarizing with the text; particularly when it is a technical one.

Analytical Skills

The translation process is characterized by an analysis stage and a synthesis stage. During analysis, the translator refers to the protext in order to understand it as fully as possible. The synthesis stage is the one in which the protext is projected onto the reader; that is; onto the idea that the translator thinks of who will be the standard reader of the meta-text.

Students are advised to use the following analytical skills:

1. Identify beginnings and endings of ideas in the text and the relationships between these ideas
2. Identify the 'best' meaning that fit into the context
3. Identify the structure in the target language that 'best' represents the original
4. Identify transitions between ideas and the 'best' cohesive devices in the target language that represent the original.

Composing and Production Skills

In this final stage, the translator has two needs; first, to externalize the set of impressions caused by text perception, translate into speech acts the mental material produced by contact with prototext; second, to make this product coherent within itself, i.e, transform a set of speech acts into a text (meta-text). In this final step, the translator needs to visualize the mental content derived from the first three steps into a written text. These skills were analyzed because it focused on the process of translation, rather than the final product, that gives insights into language learning skills in general.

Students-lecturers are therefore advised to follow these strategies when writing the final version of the translation:

1. Use correct word order as followed in the target language
2. Use correct sentence structures as followed in the target language
3. Transmit the ideas of the text in clear ideas in the target language
4. Rephrase certain sentences to qualify for the overall meaning translated
5. Make changes to the text as a whole to give it a sense of the original without distorting the original ideas
6. Try one or more of the following strategies when facing problems of untranslatability:
 - a. Syntactic Strategies
 - Shift word order
 - Change clause or sentence structure
 - Add or change cohesion
 - b. Semantic Strategies
 - Use superordinates
 - Alter the level of abstraction
 - Redistribute the information over more or fewer elements
 - c. Pragmatic Strategies
 - Naturalize the bizarre expressions or exoticize the natural ones
 - Alter the level of explicitness
 - Add or omit information

Twenty-first Century Skills

Critical Thinking and Problem Solving

In critical thinking and problem-solving skills, students are required to have skills or abilities in: (1) trying to provide reasonable reasoning in understanding and making complex choices; (2) understand the interconnection between systems; (3) use their abilities to try to solve the problems they face independently; (4) have the ability to compile and disclose; (5) analyze; and (6) solving problems (Haniah et al., 2021).

Creativity and Innovation

In creativity and innovation skills, students are required to have skills or abilities in: (1) developing new ideas to solve various problems; (2) implementing innovation in various fields; (3) cooperate effectively and creatively with colleagues and (4) be open and responsive to new and different perspectives; (5) provide original ideas to create new breakthroughs; (6) able to work independently and responsibly (Haniah et al., 2021).

Communication and Media Fluency

In communication skills, students are required to have skills or abilities in: (1) listen carefully to understand the essence of the problem and make decisions based on science and religious knowledge that comes from valid sources and follows the understanding of pious salafus-shaleh; (2) managing media and information wisely; and (3) creating effective communication in various forms and contents orally, in writing, and multimedia. Students are given the opportunity to use their abilities to express their ideas, both when discussing with friends and when completing lecture assignments (Haniah et al., 2021).

Collaboration, Teamwork and Leadership

In collaboration skills, students are required to have skills or abilities in: (1) teamwork and leadership; (2) adapt in various roles and responsibilities; (3) work productively with others; (4) put empathy in its place; (5) respect different perspectives. Students also exercise personal responsibility and flexibility in personal, workplace, and community relations; setting and achieving high standards and goals for self and others; understand the confusion (Haniah et al., 2021).

2 Method

2.1 Participants

The participants of this study were Translation students (N = 60), males and females, majoring in English education program. They completed an average of six years of secondary school. They had enrolled three classes of speaking, listening and writing in previous semesters while Translation course is in the fifth semester.

2.2 Instruments

The pre-test and post test instruments used in this study is GELP (General English Language Proficiency). This GELP sample test was administered to ensure the participants' level of English proficiency. The test consisted of listening comprehension (50 multiple

choices), structure and written expression (40 multiple choices) and reading comprehension (50 multiple choices). According to the university TOEFL score requirement, college students should get approximately 450 – 500. This GELP test will determine three level of students in language proficiency, i.e. low-scoring students, medium-scoring students and high-scoring students.

2.3 Basic Translation Skills and Twenty-first Century Skills test

This modul is designed to promote students to explore their Basic Translation Skills and optimalize their Twenty-first Century Skills. This module was validated by three professors in Translation, Online Education and Applied Linguistics. This modul is designed for 10 sessions, 2 sessions for pre-test and post-test and the last 2 sessions for opening and closing sessions of Translation project. All participants were measured through satisfaction quisionaire on the using of moodle as a medium of instruction. All sessions lasted for about 90 minutes, and all of the materials and video presentation had been learnt before the session begun.

2.4 Instructional materials

The instructional materials used in this study included presentation videos, translation materials, online resources (i.e. books, journals and helpful websites). The virtual discussion room is provided in moodle and this interactive activity is recorderd by the system for furher analysis. Before the treatment, the participants were informed about the procedures of data collection, discussion, translation projects were made with with their consent.

2.5 Procedure

Taking a quasi-experimental design, this study included two classes: experimental and control class. It was done over a period of 10 consecutive sessions. In the session, the participants took a General English Language Proficiency (GELP) pre-test and the result of the test determined all the participants into three types of students, they are (1) low scoring students; (2) medium scoring students; (3) high scoring students. During the next eight sessions, they recieved the modified translation materials, instructional treatment, lesson objectives, interactive videos, online quizzes provided by the lecturers on Moodle wall. During the course, participants worked collaboratively handling translation project using SmartCAT. In the last session, the GELP post-test was administered.

The Moodle instruction in every session has five activities: (1) Translation Materials; (2) Online Test or Assignment; (3) Virtual Chat Room; (4) Virtual Meeting; (5) Digital Resources. The instruction of each treatment sessions lasted 90 minutes. The lecturer (one of the researchers) sent zoom link to all participants and started the instruction by asking some conciousness-raising questions about the materials posted in Moodle wall. Participants who had a video presentation led others in group discussion in Virtual Chat Room. All participants had already watched the presentation video for 30 minutes before the session and prepared all of the questions and notes for the presenters to revise the materials and improve the presentation. The purpose of virtual discussion was to help learners to identify the realization of translation materials and to reinforce what they learnt remotely through moodle.

The research on the implementation of flipped learning model using moodle to increase students' higher order thinking skills (Mas'ud and Surjono, 2018). This study aims to reveal the differences in the learning achievement based on higher order thinking skills of the students using flipped classroom learning model using moodle media on simulation and digital

communication subjects and that of those using the conventional learning model with printed book media. The research method in this study is quasi Experimental design by using non equivalent control group design (pretest, posttest which is not equivalent), that is the distribution of research sample which is intended to know or try to examine the existence of causal relationship by comparing between experimental group that has been given treatment with comparison group that has no treatment. This experimental method was chosen to test the influence of one or more variables on other variables or causal relationships of one or several variables.

Based on the results of research conducted, it is found that moodle-based flipped learning model as a medium of instruction positively affects the students' higher order thinking skills, such as analyzing the source text, Evaluating the target text and creating a good translation product. The translation course is integrated with 4Cs in the translation handbook.

3 Result and Discussion

3.1 Result

]To ensure the data met the assumptions of normality, data screening was conducted. Table 1 shows that the normality test of the pre-test and post-test.

Table 4. Normality Test of the Pre-test and Post-Test

Class		Tests of Normality					
		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Experiment	Pre-Test Experiment (FLIP)	.102	30	.200*	.916	30	.021
	Post-Test Experiment (FLIP)	.113	30	.200*	.962	30	.339
Control	Pre-Test Control (Conventional)	.126	30	.200*	.944	30	.113
	Post-Test Control (Conventional)	.151	30	.080	.964	30	.399

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

As shown in Table 1, the data related to performances of the two groups in the pre-test and post-test were normally distributed ($p > 0.05$). In the following sections, the data were analyzed and the findings were reported in relation to hypotheses.

The descriptive statistics in table 2 show the participants' performances in Basic translation Skills pre-test and post-test. The mean in experiment class has increased from 64.9173 to 88.5377. The mean in the experiment class (mean = 88.5377) is higher than the mean in the control class (mean = 80.0487). It concluded that the training in Basic Translation Skills has significant effect to the students' result in Translation course.

Table 5. Descriptive statistics for the pre-test and the post-test

Descriptive Statistics									
	N	Range	Minimum	Maximum	Sum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Pre-test Experiment	30	44.13	35.18	79.31	1947.52	64.9173	1.58931	8.70501	75.777
Post-test Experiment	30	15.12	79.73	94.85	2656.13	88.5377	.66477	3.64110	13.258
Pre-test Control	30	44.33	35.18	79.51	1944.48	64.8160	1.68957	9.25415	85.639
Post-test Control	30	20.04	70.71	90.75	2401.46	80.0487	.97431	5.33653	28.479
Valid N (listwise)	30								

Table 6. Independent Samples t-Test for post-test of experiment class and control class

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Result	Equal variances assumed	5.626	.021	7.197	58	.000	8.48900	1.17949	6.12799	10.85001
	Equal variances not assumed			7.197	51.191	.000	8.48900	1.17949	6.12128	10.85672

As shown in Table 3, significant differences exist post-test of experiment class and control class ($t = 7.197$, $p < 0.05$). As it has been hypothesized, the experiment class is significantly outperformed than the control class in the production of Target Text.

3.2 Discussion

This course aims to examine how stretches of language, considered in their full textual, social, and psychological context, become meaningful and unified for their users. It provides insights into the problems and processes of language use and language learning, and is therefore of great importance to language teachers. Then, it also aims to explain the theory of discourse analysis and to demonstrate its practical relevance to language learning and teaching. This course is mostly theoretical in which students are engaged in lectures, discussions and literature studies. Assessment is conducted in terms of students' classroom participation, assignment, and final tests.

After this course, the students are expected to 1) to understand the scopes of discourse analysis in Translation that will be beneficial in language learning, 2) to be able to analyze language use in a wide range of discourse types, 3) to know the contribution of discourse analysis in language teaching.

In A Review of Flipped Learning (Hamdan & McKnight, 2013) the authors acknowledge that flipped classrooms can differ in methods and strategies, largely due to the fact that “learning focuses on meeting individual student learning needs as opposed to a set methodology with a clear set of rules”. As such, the authors suggest the following are the key features that foster learning:

1. Flipped Learning requires flexible environments. As in-class activities in a flipped classroom can vary from collaborative group work to independent study to research, educators often rearrange the physical space in a classroom to accommodate these variants.
2. Flipped Learning requires a shift in learning culture. Flipped classrooms shift the focus from teacher-led to student-centered learning in order for learners to experience topics in greater depth through active, more meaningful approaches to learning.
3. Flipped Learning requires intentional content. Educators evaluate which materials should be presented to students in advance and which content should be taught directly to help students “gain conceptual understanding as well as procedural fluency” through constructivist approaches.
4. Flipped Learning requires dedicated, professional educators. The use of the flipped classroom approach, particularly with the presentation of materials through digital media and technologies, is not intended as a replacement for educators. Class time is crucial for the educator to determine if students have, *inter alia*, gained understanding of a topic.

Student-centered method of teaching and learning is based on the constructivist learning theory which takes the position that learners are active in how they interpret information and build meaning and knowledge through prior experiences using observation, problem-solving and processing (Cooper, 1993; Wilson, 1997; Ertmer & Newby, 1993). Constructivism takes into consideration the influence of content and context in learning to be a truly individual process. It moved away from the more direct, teacher-centered method. Behaviorist theory which critics that learning is an individual process felt lacked a focus for fostering meaningful learning, and placed too little significance on the positive effects of group work.

In this chart every course should have some learning outputs, the lecturers set the course study from learning process to learning output. In active virtual learning, students should take turn in giving presentation and manage the group-discussion. There are some teaching methods of bloom’s taxonomy in Flipped Virtual Classroom:

1. **Project.** *Moodle Translation Project.* This translation project is measured activities that group of students should design during the translation course. Such as making subtitles, translating manual book or medical instruction, making a review and describing every part of application, translating textual stories into digital stories, and last but not least translating textual books into pictural books.
2. **Activities.** *Moodle Interactive Learning Activities.* There are many activities that Moodle provides for e-learning activities. The activities are based on *Basic Translation Skills*, i.e. Reading Comprehension Skills, Researching Skills, Analytical Skills, and Composing Skills. In Moodle, students could chat each other and to the lecturer and do the discussion and assignment. They also could give comments and feedbacks to their friends’ answers.

3. **Collaboration.** *Moodle Collaborative Learning Activities.* Students are trained to use Online Microsoft Word in order to create an article of translation problems or translation journals. They should be familiar with Mendeley and Scimago to support their writing. They need to be more independent by using free digital library for extended reading. And finally, lecturer could give comments and feedbacks on their Online Microsoft Words through the shared links.
4. **E-conference.** Moodle Virtual Meeting. Lecturers and Students could bring the e-learning synchronously by using ZOOM, CISCO Webex Meetings, Google Meet, Microsoft Teams. This virtual meeting is used for introduction, explanation of the whole course at the beginning, and students' presentations. Lecturers could upload videos or YouTube links anytime and anywhere for additional information to students. Students who can't join the virtual meeting, they still can follow form YouTube.

3.3 The Implementation of Flipped Learning

The flipped learning model is a student-centered model aimed at increasing student engagement, understanding and retention by reversing the synchronous virtual classroom teaching approach into the asynchronous virtual classroom teaching approach. Cole (2009) argues that this model is a more efficient use of class time, by focusing on the practical application of knowledge during class. Educators with large classes can particularly benefit from the technique, as Schullery et al. (2011) suggest, whereby a move from a passive, lecture model for 300 business students was flipped to active learning with groups of 24 students to result in a more engaging experience. As a result, student efficiency was increased by providing them with the opportunity to come to class more prepared, having been primed for the learning with pre-class instructional material (Bodie et al., 2006).

Gannod et al. (2008) point to the increased opportunities for active learning during class time, and this approach in itself offers key benefits for students. As Prince (2004) and Bonwell & Eison (1991) note, "active learning requires students to do meaningful learning activities and think about what they are doing". The literature frequently discusses active learning with respect to collaborative learning, cooperative learning and problem-based learning, all of which promote meaningful learning and foster student engagement in the learning process allowing students to increase their learning autonomy (Overmyer, 2012).

The potential to increase student engagement and motivation is a significant driving force in the provision of flipped classrooms. Innovations and advances in technology have allowed educators to create resources to foster meaningful engagement (Schullery et al., 2011) and many platforms and services provide a means of collating useful resources for re-use by educators and students. This increased or adapted use of technology coupled with a more student-centred approach can help to facilitate learning for students with varying learning preferences or styles (Gallagher, 2009; Gannod, et al., 2008).

The flipped classroom model provides more opportunities to offer one-to-one interaction with students (Lage et al., 2000) to increase the development of higher-order skills through analysis, evaluation and creation (Bloom et al., 1956), critical thinking and problem solving. This interaction is often peer-to-peer, providing educators with more opportunities to ensure knowledge acquisition and understanding, particularly in large groups. By focusing on the quality of the interaction rather than the quantity student performance can be improved (Pierce & Fox, 2012).

The flipped classroom model has the potential of benefitting diverse learners due to the student-centered approach that is the focus of the model. By providing students with foundational information asynchronously, which they can access on demand and review as many times as they need, they have more opportunities to “understand and improve their recall before they come to class” (Hamdan & McKnight, 2013). Arnold-Garza (2014), referencing Overmyer (2012) suggests that students can benefit from reflecting on the material and specific concepts “through questions and discussion with their teacher, by working with their peers to solve problems based on lecture content, by demonstrating or arguing their own solutions to classmates and the teacher, by checking their understandings through in class experimentation and lab work, and by peer tutoring or creation of learning objects”. According to the Flipped Learning Network, the majority of lecturers who have flipped their class noticed improvement in the grades as well as the attitudes of their students. The Flipped Learning Model gives students much time to study the material and make notes and questions to be discussed in the discussion forum, so they will be well prepared for the next discussion. Almost every teacher who tried this model wants to flip classes again. Let us summarize the key benefits that are behind this success.

4 Conclusion

This study attempted to investigate the effects of moodle-based flipped learning model in teaching translation to increase basic translation skills and twenty-first century skills. Having identified a gap in task-based and project-based learning in translation courses, this study attempted to bridge this gap by investigating the effects of basic translation skills and twenty-first century skills on university students’ annotated translation and translation qualities. This was done on four basic translation skills and twenty-first century skills, but somehow this course integrated moodle as a medium of instruction and SmartCAT as a collaborative translation tool. The results of this study showed that students who experienced moodle-based flipped learning model were outperformed than those who experienced conventional learning.

The result showed that the significance score of the independent samples t-Test ($p < 0.05$), it can be concluded that there is an effect of moodle-based flipped learning model compared with traditional lecture in translation course.

The present study has a number of theoretical and pedagogical implications for novice translators and also professional translators and educators. This study provided a learning scenario for students and lecturers to bring online learning more efficient and meaningful. Many studies have already reported that flipped learning model had a positive effect on educational outcomes, such as accelerating self-learning, improving academic performance, developing critical thinking skills and increasing positive feedback (Tan et al., 2017). This learning approach enables students to manage their own learning through completion of preparatory work, interactive videos, virtual chat room and online examination. It also frees up actual class time for robust discussion and assigned problem-solving activities, learning project for learning outcome. This learning scenario may help students to improve self-efficacy through self-studying, problem-solving, project collaborating and communication skills that are recommended by university.

This study indicated that moodle-based flipped learning model in teaching translation course to increase basic translation skills and twenty-first century skills might help students improve in knowledge, skills, self-learning, learning satisfaction and enthusiasm. This research

is to focus on how the translation process begins and ends through a translation training rather than telling the students to translate without the four basic translation skills (or it is called product-oriented outcome). Moodle-based flipped learning model is recommended in university level and also make the lecturers possible to share meaningful dictionaries, books, journals, magazines that might be applicable in translation course by using discussion forum, chat bubbles, personal message. Finally, students will get many opportunities to potentialize their skills in translation and also their language proficiencies.

Reference

- Alfadly, A. A. (2013). (Q2)The efficiency of the “Learning Management System (LMS)” in AOU, Kuwait, as a communication tool in an E-learning system. *International Journal of Educational Management*, 27(2), 157–169.
- Alizadeh, I. (2019). (Q1)Using an LMS in teaching English: A qualitative content analysis of medical sciences students’ evaluations and suggestions. *Qualitative Report*, 24(11), 2851–2873.
- Bergmann, J., & Sams, A. (2012). *Flip your Classroom: Reach every Student in every class every day*.
- Bhagat, K. K., Chang, C. N., & Chang, C. Y. (2016). The impact of the flipped classroom on mathematics concept learning in high school. *Educational Technology and Society*, 19(3), 134–142.
- Calvo, E. (2015). (Q1)Scaffolding translation skills through situated training approaches: Progressive and reflective methods. *Interpreter and Translator Trainer*, 9(3), 306–322. <https://doi.org/10.1080/1750399X.2015.1103107>
- Chang, D. F., Huang, Y. L., & Wu, B. (2017). (Q4)Analyzing the functions and benefits of using mobile facebook as a supplemental LMS in higher education. *Journal of Advanced Computational Intelligence and Intelligent Informatics*, 21(6), 971–979. <https://doi.org/10.20965/jaciii.2017.p0971>
- Cheng, X., Ka Ho Lee, K., Chang, E. Y., & Yang, X. (2017). The “flipped classroom” approach: Stimulating positive learning attitudes and improving mastery of histology among medical students. *Anatomical Sciences Education*, 10(4), 317–327. <https://doi.org/10.1002/ase.1664>
- Elliott, R. (2014). Do students like the flipped classroom? An investigation of student reaction to a flipped undergraduate IT course. *2014 IEEE Frontiers in Education Conference (FIE) Proceedings, 2015-Febru(February)*, 1–7. <https://doi.org/10.1109/FIE.2014.7044070>
- Haniah, A. U., Ngadiso, N., & Setyaningsih, E. (2021). Students’ Perception on the Implementation of Online Project-Based Learning in Teaching 4Cs. *IJELTAL (Indonesian Journal of English Language Teaching and Applied Linguistics)*, 6(1), 123. <https://doi.org/10.21093/ijeltal.v6i1.895>
- Irwanto, Rohaeti, E., Widjajanti, E., & Suyanta. (2017). Students’ science process skill and analytical thinking ability in chemistry learning. *AIP Conference Proceedings*, 1868. <https://doi.org/10.1063/1.4995100>
- Joo, Y. J., Kim, N., & Kim, N. H. (2016). (Q1)Factors predicting online university students’ use of a mobile learning management system (m-LMS). *Educational Technology Research and Development*, 64(4), 611–630. <https://doi.org/10.1007/s11423-016-9436-7>
- Lai, C. L., & Hwang, G. J. (2016). A self-regulated flipped classroom approach to improving students’ learning performance in a mathematics course. *Computers and Education*, 100, 126–140. <https://doi.org/10.1016/j.compedu.2016.05.006>
- Lam, P., Lau, C. K. M., & Chan, C. H. (2019). Strategies To Flip a Classroom: Lessons Learnt From a Joint-University Project. *Iadis International Journal on Www/Internet*, 17(1), 51–65. https://doi.org/10.33965/ijwi_2019171104
- Mas’ud, H., & Surjono, H. D. (2018). The Implementation of Flipped Classroom Learning Model Using Moodle To Increase Students’ Higher Order Thinking Skills. *Journal of Educational Science and Technology (EST)*, 4(3), 187–194. <https://doi.org/10.26858/est.v1i1.6521>

- McCredden, J., Reidsema, C., & Kavanagh, L. (2017). Designing an Active Learning Environment Architecture Within a Flipped Classroom for Developing First Year Student Engineers. In *The Flipped Classroom* (pp. 97–129). Springer Singapore. https://doi.org/10.1007/978-981-10-3413-8_7
- McLaughlin, J. E., Roth, M. T., Glatt, D. M., Gharkholonarehe, N., Davidson, C. A., Griffin, L. M., Esserman, D. A., & Mumper, R. J. (2014). The flipped classroom: A course redesign to foster learning and engagement in a health professions school. *Academic Medicine*, 89(2), 236–243. <https://doi.org/10.1097/ACM.0000000000000086>
- Mellinger, C. D. (2017). (Q1)Translators and machine translation: knowledge and skills gaps in translator pedagogy. *Interpreter and Translator Trainer*, 11(4), 280–293. <https://doi.org/10.1080/1750399X.2017.1359760>
- Mohd Kasim, N. N., & Khalid, F. (2016). Choosing the Right Learning Management System (LMS) for the Higher Education Institution Context: A Systematic Review. *International Journal of Emerging Technologies in Learning (IJET)*, 11(06), 55. <https://doi.org/10.3991/ijet.v11i06.5644>
- Nilsen, A. B., & Monsrud, M. B. (2015). Reading skills for sight translation in public-sector services. *Translation and Interpreting*, 7(3), 10–20. <https://doi.org/10.12807/ti.107203.2015.a01>
- Nouri, J. (2016). The flipped classroom: for active, effective and increased learning – especially for low achievers. *International Journal of Educational Technology in Higher Education*, 13(1). <https://doi.org/10.1186/s41239-016-0032-z>
- O', D., Sullivan, N. A., Krewer, F., & Frankl, G. (2017). Technology enhanced collaborative learning using a project-based learning management system. *International Journal of Technology Enhanced Learning*, 9(1), 14. <https://doi.org/10.1504/IJTEL.2017.084085>
- Quezada, C., & Westmacott, A. (2019). Reflections of L1 reading comprehension skills in university academic grades for an undergraduate translation programme. *Interpreter and Translator Trainer*, 13(4), 426–441. <https://doi.org/10.1080/1750399X.2019.1603135>
- Tan, C., Yue, W.-G., & Fu, Y. (2017). Effectiveness of flipped classrooms in nursing education: Systematic review and meta-analysis. *Chinese Nursing Research*, 4(4), 192–200. <https://doi.org/10.1016/j.cnre.2017.10.006>
- Thai, T. N. T., Wever, B. De, & Valcke, M. (2017). The impact of a flipped classroom design on learning performance in higher education: Looking for the best “blend” of lectures and guiding questions with feedback. *Computers & Education*. <https://doi.org/10.1016/j.compedu.2017.01.003>
- Wang, G., Zhao, H., Guo, Y., & Li, M. (2019). Integration of flipped classroom and problem based learning model and its implementation in university programming course. *14th International Conference on Computer Science and Education, ICCSE 2019, Iccse*, 606–610. <https://doi.org/10.1109/ICCSE.2019.8845525>
- Wang, Y., & Chen, N. S. (2009). (Q1)Criteria for evaluating synchronous learning management systems: Arguments from the distance language classroom. *Computer Assisted Language Learning*, 22(1), 1–18. <https://doi.org/10.1080/09588220802613773>
- Williams van Rooij, S. (2012). (Q1)Open-source learning management systems: A predictive model for higher education. *Journal of Computer Assisted Learning*, 28(2), 114–125. <https://doi.org/10.1111/j.1365-2729.2011.00422.x>
- Yuen, A. H. K., Cheng, M., & Chan, F. H. F. (2019). (Q1)Student satisfaction with learning management systems: A growth model of belief and use. *British Journal of Educational Technology*, 50(5), 2520–2535. <https://doi.org/10.1111/bjet.12830>