Effectiveness of Flipped Classroom in Teaching Pronoun-Antecedent Agreement to Grade 10 Students of a National High School in Alaminos, Laguna, Philippines

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コロナ禍で対面授業の機会が減ったのを機に、オンラインで生徒が授業内容を予習し、対面授業では教師が生徒からの質問に個別対応する「反転授業」の効果をフィリピンの高校で探った。

Abstract

Also known as "inverted classroom" by education practitioners, the flipped classroom holds much promise as schools embrace a "new normal" of teaching and learning amidst the COVID-19 pandemic. The flipped classroom reverses the usual activities in the classroom where learning materials are provided online so students can study the materials before coming to class. Classroom time can thus be utilized for problem solving and analysis.

This study determines the difference between knowledge gained by the students in flipped classroom and in traditional approach; compare students' level of engagement in traditional and flipped classroom; and evaluate students' perceptions on flipped classroom in teaching grammar. Data were gathered from two groups: the experimental and the controlled. The experimental made use of flipped classroom, while the controlled had the traditional approach. Pre-test and Post-test on Pronoun-Antecedent Agreement were given to the two groups. They were also asked to answer the questionnaire on student engagement. Focus group discussion was conducted to support students' perception.

Results show that students in the experimental group performed higher than those in the controlled. Through t-test, significant difference between the mean scores of the two groups was identified. In terms of students' engagement, students in the flipped classroom strongly agreed that they were intellectually, emotionally, and actively engaged than those in the traditional approach. Through Mann Whitney U test, there was a significant difference in terms of students' engagement between the two groups. Students perceived that flipped classroom is effective in teaching Pronoun-Antecedent Agreement.

Introduction

The process of teaching learners effectively and efficiently will always be a main concern that Philippine schools continue to address, especially during this time of global health crisis. This quest becomes a major issue especially since 21st century learners have different learning styles that are influenced by factors outside the learning environment, including the use of technology.

According to Hogue (2011), the 21st century learners are those learners who emerged after the realization of personal computers. They were born after 1980 and can be called the "the net generation" or "digital natives." Hogue further elaborated that this group can be generalized as the lifelong learners who can adapt to the rapid pace of change and have increased ability to multi-task and possess an increased aptitude for the utilization of technology. In addition, 21st century students are characterized by performing learning tasks independently while working with the rest of the class and navigating machines towards the accomplishment of the assigned

task (McCoog, 2008).

To cater to the needs of these learners, Boholano (2017) suggested that school systems be ready with Information and Communication Technology (ICT) resources and a curriculum to promote collaborative learner-centered environment that will require learners to relate and respond.

In addition, Alias (2010) claimed that learning exists anywhere and anytime even without confining the learners in a classroom. This is further supported by a study conducted by Pudin (2017) emphasizing that students learn more effectively when the delivery of lectures is blended with the use of technology and can be learned at flexible hours.

Baker (2000) introduced the "flipped classroom" approach which is also known as an "inverted classroom" (Lage, Platt, & Treglia, 2000). This is an approach that can be used to actively engage students in their learning. This is done explicitly by bringing active student engagement with the material (such as problem-solving, case studies usually in collaboration with other students) directly into the classroom while performing activities passively like reading notes and books and watching lecture videos outside the classroom.

Furthermore, flipped classroom is an approach that makes use of online videos and activities (Pudin, 2017). It caters the student-centered learning environment (Ali & Saberg, 2016). Alias (2010) pointed out that flipped classroom can be beneficial to be applied in a grammar classroom because it presents more effective active learning since the function of the teacher is reinforced, efficient use of time is observed, a more face to face time interaction is practiced, peer learning is enhanced, greater control of content delivery is evident, integration of knowledge can be observed, and students can learn on demand.

The study conducted by Barraquio (2015) revealed that Pronoun-Antecedent Agreement is one of the areas in grammar where college students received a rating of "Needs Improvement."

In addition, as we face the new normal in education, the delivery of instruction has been a challenge to all educational institutions. Some have chosen to conduct modular distance learning; some opted to deliver online using different learning management system (LMS).

The sudden switch to online learning remains to pose numerous challenges to schools, teachers, students, and parents. Smith (2020) recommends an online instruction method that individualizes student learning and demonstrates the teacher's value of collaborative synchronous learning time through a flipped learning model.

Based on these various positive claims on flipped classroom and the emergence of this global pandemic, there is an implied need to analyze the effectiveness of flipped classroom when utilized in teaching a grammar lesson.

Thus, this study aimed to: (1) compare the knowledge gained in flipped classroom and traditional approach; (2) compare the level of students' intellectual, emotional, and participatory engagement between flipped classroom and traditional approach; and (3) evaluate students' perceptions of using a flipped classroom in teaching Pronoun-Antecedent Agreement.

Methodology
Locale and Respondents of the Study

The Grade 10 students of a national high school in Alaminos, Laguna served as the respondents of the study. This national high school offers junior and senior high school.

There were 170 Grade 10 students during the school year 2018-2019. These 170 students were sheltered into five sections: Mt. Apo, Mt. Banahaw, Mt. Makiling, Mt. Mayon, and Mt. Taal. Each section had a class size which ranged from 30 to 36 students. The characteristic of each section is heterogeneous in nature because students were assigned to their respective sections based on their general average from the previous school year.

The researcher utilized fishbowl technique to assign sections to be part of the experimental and control group. Based on the result of the fishbowl technique, Mt. Apo and Mt. Mayon were chosen to be part of the control group. Mt. Taal and Mt. Banahaw comprised the experimental group. On the other hand, Mt. Makiling was picked to be the section where the pre-test was pilot tested.

Data Collection

Prior to the conduct of the study, the researchers sought permission from the school head of the national high school and it was followed by the issuance of parental consent to all the parents of the Grade 10 students who were tapped to participate in the study.

The topic to be learned by the students in this study was on Pronoun-Antecedent Agreement. Based on the Department of Education (DepEd) Curriculum Guide for English 10, under the grammar awareness domain, Pronoun-Antecedent Agreement is one of the underlying topics to be covered in the Third Quarter.

The pre-test was administered to both the experimental and control groups. Prior to the conduct of the pre-test to the two groups, the pilot testing of the pre-test to Mt. Makiling was administered and Item Analysis was conducted right after.

Through the assistance of the ICT Coordinator of the school, students in the experimental group were invited to the computer laboratory to watch the flipped content during their free time. This supports the definition of Flipped model presented in the study of Moore & Chung (2016) that students in the flipped classroom learn new content by watching web-based instructional video lectures outside of the classroom (at home, at a friend's house, at the library, on mobile devices). Furthermore, flipped content was sent to the official group chat of the students in the experimental group.

Students in the experimental group were informed that they will be taught about the topic using flipped classroom. This means that teacher will no longer spend classroom time on lectures and discussion instead the role of the teacher is to guide them how to accomplish various learning tasks, to employ differentiated instruction, and to establish an environment that permits them for further face to face interaction (Ali & Saberg, 2016).

On the other hand, a lecture, using a powerpoint presentation was given to the control group and various group tasks were also utilized in the discussion.

A post-test was given to the students from the control and experimental groups at the end of every session. They were also asked to answer a Student Engagement Questionnaire (SEQ) which was adapted and modified from the study of Cronhjort, Filipsson, & Weurlander (2018). This questionnaire is comprised of 11 items which are categorized into three parts: (1) cognitive engagement, (2) emotional engagement, and (3) active participation.

On the other hand, students in the experimental group were asked to answer another set of questionnaire on their perception on the use of flipped classroom. The Student Perception Questionnaire (SPQ) was adapted and modified from the study of Johnson (2013). It has 11 items which are classified intro three themes: (1) general perception of flipped learning, (2) roles of videos and social media, and (3) time.

Furthermore, the ICT Coordinator was tapped to conduct a focus group discussion (FGD) among 18 students from the experimental group. Six were top performing students, six were average performing students, and six were low performing students.

Research Design

The study utilized an experimental research design to analyze the effectiveness of flipped classroom to students' knowledge, engagement, and perception in learning Pronoun-Antecedent.

The following hypotheses were tested:

H_0: There is no significant difference in terms of the mean knowledge gained between the traditional approach and the flipped classroom. The use of flipped classroom and the traditional approach in teaching grammar are basically the same in terms of effectiveness.

H_{a1}: There is a significant difference in terms of the mean knowledge gained between the traditional approach and the flipped classroom. The use of flipped classroom in teaching grammar is more effective than the traditional teaching method.

H_{a2}: There is a significant difference in terms of the mean knowledge gained between the traditional approach and the flipped classroom. The use of traditional approach in teaching grammar is more effective than

the flipped classroom

Data Analysis

The following were the statistical treatments employed in the study.

First, mean was used to determine the scores of the students in English grammar in the pre-test and post-test. Second, the weighted mean was utilized to determine the level of students' engagement between the flipped classroom and Traditional approach. This was also used to determine the students' perceptions of a flipped classroom to grammar input. Third, an independent t-test was done to determine the significant difference between the knowledge gained by the students in flipped classroom and Traditional approach. Lastly, Mann Whitney U-test was utilized to determine the significant difference on the level of students' engagement between the flipped classroom and traditional approach.

Research Findings

This section presents major findings of the study.

Difference between Students' Knowledge Gained in Flipped Classroom and Traditional Approach

Students' Mean Scores in the Pre-test

Table 1 shows the performance of the students in English grammar from experimental and control groups obtained mean scores of 9.81 and 8.47, respectively. It can be observed that both groups obtained mean scores below half of the total score which is 10. This implies that both groups failed the English grammar test. This also indicates that both groups of students have insufficient knowledge in English grammar.

Table 1. Students' mean scores in the pre-test

Group	Section	Mean	n	Std. Deviation
Experimental	Taal	10.5	29	3.51
	Banahaw	9.04	28	2.81
	Weighted Mean	**9.81**	**57**	**3.25**
Controlled	Apo	8.36	25	3.15
	Mayon	8.57	30	3.16
	Weighted Mean	**8.47**	**55**	**3.13**
Composite Mean		**9.15**	**112**	**3.24**

Students' Mean Scores in the Post-test

Table 2 reveals the results of the students' performance in English grammar from experimental and controlled groups. The experimental group obtained mean scores of 14.9 and 11.1 for the controlled group. It can be noted that students' mean scores from experimental group is higher than those students from controlled group. This could mean that the students' performance in English grammar is higher than those students from the controlled group.

This implies that students found flipped classroom more effective in teaching Pronoun-Antecedent Agreement than the traditional approach. The different group activities employed in the flipped classroom helped them to perform and understand better the lesson.

Table 2. Students' mean scores in the post-test

Group	Section	Mean	N	Std. Deviation
Experimental	Taal	15.0	29	3.93
	Banahaw	14.7	28	4.76
	Weighted Mean	**14.9**	**57**	**4.32**
Controlled	Apo	11.8	25	4.26
	Mayon	10.5	30	3.62
	Weighted Mean	**11.1**	**55**	**3.94**
Composite Mean		**13.0**	**112**	**4.53**

Comparison of Knowledge Gained in Flipped Classroom and Traditional Approach

Table 3 shows that the knowledge gained by the students in flipped classroom and Traditional based on their post-test scores obtained mean scores of 14.9 and 11.1, respectively with a mean difference of 3.75. The mean scores obtained a computed t-value of 4.794 with corresponding p-value which is less than 5 percent level of significance that led to reject the null hypothesis. Therefore, there is a significant difference on the knowledge gained by the students in flipped classroom and Traditional classroom (tfn=112, df=100) =4.794, p<0.00). It can be noted that the mean scores of the students from Experimental classroom is higher than those students from Traditional classroom. This implies that the knowledge of the students in English grammar using flipped

classroom is higher than those students taught using Traditional approach. According to Carini, Kuh, and Klein (2006), students in a flipped classroom may have achieved more compared to those in a traditional setting because of higher engagement in a flipped classroom.

Table 3. Students' Knowledge Gained in Flipped Classroom and Traditional Approach

Post-test	Mean	Mean Difference	Computed t-values	p-values	Decision on Ho	Verbal Interpretation
Experimental	14.9	3.75	4.794	0.000	Reject	Significant
Controlled	11.1					

Students' Engagement
Students' Intellectual Engagement

Table 4 shows the difference in the level of students' intellectual engagement between the experimental and controlled groups. In the experimental group, the third and fourth statements ("*In understanding the lesson, I tried to understand how things are connected*") and ("*Related the lesson to real word examples*"), ranked first and second with a weighted mean of 4.32 and 4.25 respectively.

Consequently, Mt Banahaw and Mt. Taal agreed that the lesson was challenging in a positive way. This statement placed third in rank with 4.02 weighted mean. Likewise, students agreed that they worked hard to learn what was difficult during the discussion. This statement got a weighted mean of 3.82 that made this statement ranked last.

On the other hand, in the controlled group, Mt. Apo and Mt. Mayon gave a weighted mean of 3.80 to the first and third statements ("*The lesson was challenging in a positive way*") and ("*In understanding the lesson, tried to understand how things are connected*") which ranked first. The third in rank is the fourth statement ("*Related the lesson to real world examples*") with a weighted mean of 3.73. The statement ("*During the discussion, I worked hard to learn what was difficult*") got a weighted mean of 3.55 that placed this statement last in rank.

The result implies that there is a need for the students to understand how things are connected with one another before they are given a particular learning task

to accomplish. In addition, students learn better by relating the lesson to real world examples or scenarios.

Table 4. Students' level of Intellectual Engagement

	Experimental			Controlled			Overall		
	WM	VI	R	WM	VI	R	WM	VI	R
1. The lesson was challenging in a positive way.	4.02	A	3	3.80	A	1.5	3.91	A	3
2. During the discussion, I worked hard to learn what was difficult.	3.82	A	4	3.55	A	4	3.69	A	4
3. In understanding the lesson, tried to understand how things are connected	4.32	SA	1	3.80	A	1.5	4.06	A	1
4. Related the lesson to real world examples.	4.25	SA	2	3.73	A	3	3.99	A	2
Composite Mean	**4.10**	**A**		**3.72**	**A**		**3.91**	**A**	

Legend: WM-Weighted Mean   VI-Verbal Interpretation
R-Rank   SA-Strongly Agree   A -Agree

Students' Emotional Engagement

In terms of students' emotional engagement between the experimental and controlled groups, the table presents that the students in the experimental group strongly agreed to all the statements in this category. First in rank is the second statement ("*The teacher appeared to care what the students should learn and understand*") with a weighted mean of 4.60. Second in rank is the third statement ("*Students' questions and feedback appeared to be taken seriously*") with a weighted mean of 4.40. The last in rank is the first statement ("*Motivated to really learn to understand the lesson*") with a weighted mean of 4.28.

In contrast, students from Mt. Apo and Mt. Mayon, the controlled group, strongly agreed that the teacher appeared to care to what the students should learn and understand with a weighted mean of 4.24. The first statement ("*Motivated to really learn to understand the lesson*") ranked second with a weighted mean of 4.00. The third statement ("*Students' questions and feedback appeared to be taken seriously*") ranked third with a

weighted mean of 3.60.

In general, students from experimental group strongly agreed that they were more emotionally engaged than the students from the controlled group. The experimental group had a higher composite mean than the controlled group. Jamaludin et al. (2014) emphasized that students fail to learn about a specific topic or a learning material when no feedback is given in class or on discussion boards. In addition, students are motivated to accomplish the learning task and will assume responsibility to one another when they are emotionally engaged (Jones, 2012).

Table 5. Students' level of Emotional Engagement

	Experimental			Controlled			Overall		
	WM	VI	R	WM	VI	R	WM	VI	R
5. Motivated to really learn to understand the lesson	4.28	SA	3	4.00	A	2	4.14	A	2
6. The teachers appeared to care what the students should learn and understand.	4.60	SA	1	4.24	SA	1	4.42	SA	1
7. Students' questions and feedback appeared to be taken seriously	4.40	SA	2	3.60	A	3	4.01	A	3
Composite Mean	**4.43**	**SA**		**3.95**	**A**		**4.19**	**A**	

Legend: WM-Weighted Mean   VI-Verbal Interpretation
R-Rank   SA-Strongly Agree   A-Agree

Students' Engagement in terms of Participation

Table 6 shows the difference on the students' level of engagement in terms of participation between the two groups. The ratings the experimental group, Mt. Banahaw and Mt. Taal gave ranged from 4.23 to 4.51 with a verbal interpretation of Strongly Agree. The fourth statement ("*Active participation in the teaching*") ranked first with a weighted mean of 4.51. This is supported by the advantages gathered in FGD where cooperation and sharing knowledge among group members were present. Second in rank is the second statement ("*Ability to get support from the teacher, if needed*") with a weighted mean of 4.40. The third statement ("*Asking peers or teachers when didn't understand*") ranked third

with a weighted mean of 4.32. The first statement ("*Learning by working together and discussing with others*") ranked fourth with a weighted mean of 4.23. This ranking is supported by the responses the researcher acquired from the administration of FGD.

According to a student from Mt. Banahaw, "*Our teacher guided our group and was approaching each group to supervise us while we do the group activities.*" Another student from Mt. Taal said, "*Our teacher monitored each group as we did brainstorming among our group members the correct answer for the learning tasks.*"

On the contrary, students from the controlled group, Mt. Apo and Mt. Mayon, strongly agreed that the fourth statement ("Active participation in teaching") ranked first with a weighted mean of 4.40. Statement numbers 1, 2, and 3 had weighted means that ranged from 3.96 to 3.76. These ratings mean that the students agreed that they learned by working together and discussing with others. They likewise agreed that they were able to get support from the teacher, if needed. Similarly, they agreed that they can ask their peers or teachers when clarification is needed. These statements got a weighted mean of 3.96, 3.82, and 3.76 respectively.

The notable composite mean in the participatory engagement supports the findings of Wimpenny and Savin-Baden (2013) who noted that in flipped classroom where more time is spent on discussions and interactions between peers and between teachers and students, students feel that the teacher cares about their learning and takes their questions seriously and that they receive more support. These social interactions help students feel a sense of belongingness and a connection to their learning environment. Thus, a positive link between student engagement and student learning could be observed.

Table 6. Students' level of Participation

	Experimental			Controlled			Overall		
	WM	VI	R	WM	VI	R	WM	VI	R
8. Learned by working together and discussing with others	4.23	SA	4	3.96	A	2	4.10	A	3
9. Ability to get support from teachers, if needed	4.40	SA	2	3 .82	A	3	4.12	A	2
10. Asking peers or teachers when didn't understand	4.32	SA	3	3.76	A	4	4.04	A	4
11. Active participation in the teaching	4.51	SA	1	4.40	SA	1	4.46	SA	1
Composite Mean	**4.37**	**SA**		**3.99**	**A**		**4.18**	**A**	
Overall Composite Mean	**4.27**	**SA**		**3.89**	**A**		**4.09**	**A**	

Legend: WM-Weighted Mean   VI-Verbal Interpretation
*   R-Rank   SA-Strongly Agree   A-Agree*

Comparison of the Level of Students' Engagement

Table 7 reveals the students' level of engagement between the Flipped classroom and Traditional classroom in terms of intellectual, emotional and participation obtained mean scores of 4.10 and 3.72; 4.43 and 3.95; as well as 4.36 and 3.99; respectively. It likewise obtained corresponding mean ranks of 68.51 and 44.05; 70.11 and 42.40; as well as 67.06 and 45.55. The computed U-values were 833, 792, and 965.5; respectively. It attained corresponding p-values which are less than 5 percent level significance that led to reject the null hypothesis. Thus, there is a significant difference on the

level of engagement of the students between the flipped classroom and Traditional approach in terms of intellectual, emotional and participation. It can be observed that the students' mean scores from flipped classroom on intellectual, emotional, and participation are higher than those of the mean scores of Traditional classroom. This could mean that the students from flipped classroom are more engaged in terms of intellectual, emotional and participation that those students from Traditional approach.

Moreover, the overall students' level of engagement between the flipped classroom and traditional classroom obtained mean scores of 4.27 and 3.89 and mean ranks of 70.85 and 41.63, respectively. It likewise obtained computed U-value of 749.5. It attained a corresponding p-value which is less than 5 percent level significance that led to reject the null hypothesis. Thus, the level of engagement of the students between the flipped classroom and traditional approach is significantly different (Mann Whitney U (n=112, df=100) =749.5, p < 0.00). Considering that the students' mean scores of flipped classroom are higher than those of the mean scores of students from traditional approach, this indicates the students from flipped classroom are more engaged that those students from traditional approach.

The significant difference between the level of student engagement in the flipped classroom and traditional approach is supported by the study conducted by Millard (2012) who claimed that flipped classroom approach intensifies students' active engagement in class. This is

Table 7. Significant difference on the level of students' engagement between flipped classroom and traditional approach

Engagement	Group	Mean	Mean rank	Computed u-value	p-value	Decision on Ho	Verbal Interpretation
Intellectual	Experimental	4.10	68.51	833	0.00	Reject	Significant
	Controlled	3.72	44.05				
Emotional	Experimental	4.43	70.11	792	0.00	Reject	Significant
	Controlled	3.95	42.40				
Participation	Experimental	4.36	67.06	965.5	0.00	Reject	Significant
		3.99	45.55				
Overall (Engagement)	Experimental	4.27	70.85	749.5	0.00	Reject	Significant
	Controlled	3.89	41.63				

further supported by the study of McLaughlin et al. (2014) that students in flipped classroom can participate and engage in class discussions, and they feel confident in their ability to apply the knowledge. Tucker (2012) asserts that the most successful function of flipped classroom is the ability to enhance student's engagement in a subject.

Students' Perception of a Flipped Classroom to Grammar Input

Table 8 shows the weighted mean of the students' responses for the 11-item Likert scale on students' perception of a flipped classroom in teaching a grammar lesson. The weighted mean for each statement on the general perception towards flipped classroom ranges from 3.42 to 4.39. Students strongly agreed that flipped classroom has improved their grammar understanding got the highest weighted mean which is 4.39. Under the same theme, students strongly agreed that the flipped classroom gave them better opportunities to interact

with their classmates with a weighted mean of 4.33. Moreover, students agreed that they were more motivated to learn grammar through flipped classroom and agreed to recommend the approach to a friend. These statements got a weighted mean of 4.14 and 4.07 respectively. In addition, the statement that flipped classroom is more engaging than the traditional approach got the lowest weighted mean under the general perception which is 3.95.

For the second theme which is on the role of videos and social media, students strongly agreed that they were able to watch the video assignment before coming to class. This statement got the highest weighted mean of 4.2. Likewise, statements which state that students agreed that social media is an important part in their learning and they liked watching the lesson on video got a weighted mean of 3.93 and 3.51 respectively. On the contrary, students agreed that they would rather have traditional teacher led the lesson than watching a lesson video with a weighted mean of 3.42.

Table 8. Students' perceptions of a flipped classroom to grammar input

Statement	Experimental	
	Weighted Mean	Verbal Interpretation
I. Students' General Perception towards Flipped Classroom		
1. The flipped classroom is more engaging than the traditional classroom	3.95	Agree
2. I would recommend the flipped classroom to a friend	4.07	Agree
3. The flipped classroom gives me better opportunities to interact with my classmates	4.33	Strongly Agree
4. I feel that the flipped classroom has improved my grammar understanding	4.39	Strongly Agree
5. I am more motivated to learn grammar through the flipped classroom	4.14	Agree
Composite Mean	**4.19**	**Agree**
II. Students' Perception on the Roles of Videos and Social Media		
6. I like watching the lesson on video	3.51	Agree
7. Social media is an important part in my learning	3.93	Agree
8. I watched the video assignment before coming to class	4.26	Strongly Agree
9. I would rather have traditional teacher led lesson than watching a lesson video	3.42	Agree
Composite Mean	**3.78**	**Agree**
III. Students' Perception on the Use of Time		
10. I am spending less time working on traditional grammar seatwork	4.00	Agree
11. Flipped classroom gives me less class time to learn grammar	4.04	Agree
Composite Mean	**4.02**	**Agree**
Overall Composite Mean	**4.00**	**Agree**

Results of the study have been supported by Talbert (2012) who provided some drawbacks when using flipped classroom in teaching which include struggle of students to take increased responsibility for learning and culture shock. It became struggle for students because they felt uncomfortable and abandoned. It has been a culture shock because there are still learners who are accustomed to rote, face-to-face Socratic teaching. Furthermore, Herreid and Schiller (2013) claimed that learners who are inclined in traditional education have high possibility to resist this new model. This can be further supported by a response gathered in the FGD. According to the experimental group, there are still a number of students who prefer to have a traditional teacher in learning a lesson.

The perception on time management is the third theme. Students agreed that flipped classroom gave them less class time to learn Pronoun-Antecedent Agreement with a weighted mean of 4.04. This can be supported by a response from FGD that flipped classroom is not time-consuming since students have gained basic knowledge on the topic before coming to class. However, some students agreed that they have spent less time working on traditional grammar seatwork with a weighted mean of 4.00. This kind of result is supported by the study conducted by Strayer (2012) who claimed that learners were less satisfied participating in the flipped classroom activities because they felt uncomfortable with group learning activities. Also, some students were more comfortable to the traditional method of doing assignments on their own.

In general, students' perception on the use of flipped classroom obtained composite means of 4.19, 3.78, and 4.02 for the general perception, roles of videos and social media, and the use of time respectively. Moreover, an overall composite mean of 4.00 shows that students agreed that they perceived flipped classroom as an effective tool to grammar input. This result can be supported by the findings of the study conducted by Baker (2000) indicating that students had a positive perception towards flipped classroom because they found out that learning in flipped classroom is more personalized, critical thinking skills are being fostered through cooperative learning groups, and they have control over the online resources provided by the teacher.

In relation to students' perception on the use of Flipped classroom in teaching Pronoun-Antecedent Agreement, the researcher conducted a Focus Group Discussion among chosen students from the experimental group. The gathered information focused on the advantages and disadvantages of using flipped classroom in learning grammar. Participants of FGD were able to provide suggestions to improve their learning on a grammar lesson through flipped classroom. Responses of the FGD participants were summarized in **Table 9**.

One of the advantages mentioned in the FGD is easy access. A student claimed "*I can access the learning content anytime and anywhere I want according to my pace.*" The student's opinion coincides with the findings of Dyck (2013) who said that flipped classroom permits students to easily review a topic by either rewinding video or reviewing slides on their own time. In addition, students are given greater freedom in their learning choices since it allows them to learn on their own pace (Brunsell & Horejsi, 2013). Another finding to support the first response is from the study conducted by Steed (2012) who underscored that this form of learning is particularly beneficial for slower students who are able to review material as many times as they like so that they can increase their understanding on a particular lesson.

Fulton (2013) emphasized that flipped classroom teachers are given the opportunity to create more specific one-on-one interactions with students who are having difficulties. During the FGD, one of the students said: "*Understanding the lesson did not require us too much time because teacher was approachable and ready to answer our questions.*" Another student shared: "*Teacher's guidance and supervision when we do the group task were very helpful.*"

The third response ("*Students who have tendency to be absent can still catch up to the missed lesson*") is supported by Fulton (2013) who noted that the flipped classroom has also demonstrated its flexibility in situations where teachers or students cannot go to class due to illness or other reason, the scheduled lesson can push

Table 9. Summary of students' responses on the use of flipped classroom

	Students' Responses
Advantages	• We can access the learning content anytime and anywhere we want according to our pace. • Understanding the lesson did not require us too much time because teacher was approachable and ready to answer our questions. • Students who have tendency to be absent can still catch up to the missed lesson. • Group activities gave us equal chance to share one's knowledge among group members. • Teacher's guidance and supervision when we do the group task was very helpful. • Cooperation among the group members was present. • Flipped classroom is different from the traditional approach because we have gained knowledge before coming to class therefore; it is not time-consuming especially in the discussion.
Disadvantages	• Not all of us have high-end gadgets to save the flipped content. In the same way, not all of us have internet connection at home. • There are a number of students who prefer to have a traditional teacher. • The video was long enough that it is difficult to sustain our attention while watching the video. • Watching the video may deprive us not to do house hold chores when we go home because we have lecture video to watch.
Suggestions	• Employ more graphics and background music so our attention will be hooked all throughout the time when we watch the video. • Slow manner of teacher's voice in the lecture video • Inject humor so students will enjoy watching the video. • Consider students who do not have connection at home and do not have high-end phones. • Hope that other teachers in other subjects will use this kind of approach.

through. This will particularly be of significance during this time of remote learning in most schools in the Philippines due to the COVID-19 pandemic.

"*Cooperation among the group members was present*" can be clearly illustrated by one of the benefits of flipped classroom: peer-learning (Danker, 2015). In his study, Danker adapted the definition of Keppel (2006) of peer-learning and described it as a method to encourage meaningful learning and involves students teaching each other and learning from each other. Boud (2001) emphasized that this kind of learning involves sharing of ideas, knowledge, and experiences; and emphasizes interdependent as opposed to independent learning.

Another response from FGD in terms of advantages is "*Flipped classroom is different from the traditional approach because we have gained knowledge before coming to class therefore; it is not time-consuming especially in the discussion.*" Martin (2015) claimed that in flipped classroom efficiency of time usage is observed. This is because students can come to class the next day ready to actively engage in the material since students have viewed the learning material at home. This is

supported by Bergmann and Sams (2012) who noted that flipped classroom teachers are allowed to spend more time on one-on-one interaction with students to create more opportunities to check for understanding and clarify misconceptions from the students.

On the other hand, the findings of the study conducted by Wallace (2014) can be used to support the responses of the participants in the FGD in terms of disadvantages. Wallace highlighted that students with an aversion to technology may find a flipped class to be not useful and therefore will not motivate them to learn. He further underscored that although there is a majority of learners who embrace technology as an effective learning tool, a minority of students who prefer to learn in traditional classroom setting should not be disregarded.

Other disadvantages solicited from the participants of FGD can be supported by some technological issues presented in the studies conducted by Nielsen and Johnson respectively. Nielsen (2012) stressed the success of the flipped classroom is solely dependent on having a fully functional smartphone, laptop, tablet or computer and if a student does not have one of these (or

one that is working correctly) they will not be able to study. Johnson and Renner (2012) mentioned that a strong Internet connection is also a necessity to participate and those who live in areas with weak connections may be placed at a disadvantage.

Based on the FGD conducted, the number of responses in terms of advantages is greater than the disadvantages acquired from the participants. Suggestions were also raised in the discussion and will be taken seriously to improve the utilization of such intervention in the teaching process. Hence, it can be inferred that generally, students agreed that flipped classroom is an effective technique in teaching a grammar lesson.

Conclusion

The difference between the knowledge gained by the students in the flipped classroom and in the traditional approach shows that flipped classroom is more effective to be used in teaching Pronoun-Antecedent Agreement than the traditional approach to Grade 10 students. This means that students in flipped classroom performed better than those in the traditional approach. Moreover, students strongly agreed that in flipped classroom, they were more engaged intellectually, emotionally, and actively than those in the traditional approach. This concludes that the knowledge gained in the flipped classroom is associated to the students' level of engagement. In addition, students perceived that flipped classroom helped them to understand Pronoun-Antecedent better than the traditional approach.

Recommendations

Based on the results and conclusions, the following recommendations are thus endorsed:

For English Teachers

The result of the study shows that flipped classroom is an effective tool in teaching a lesson on Pronoun-Antecedent Agreement. With this, English teachers may opt to adapt same teaching model in teaching a different grammar lesson but need to secure that students have internet connection at home. Also, there is no single method which can be used to address the preferences of the learners. Thus, teachers should consider other learning activities that will promote collaborative and active learning before flipping the class.

For Other Teachers

The Flipped classroom might be a perfect model to be used in other learning areas by other teachers in teaching a specific lesson. This study presents positive result in terms of student engagement and knowledge gained. With this, teachers should be ready with various group tasks that will strengthen student engagement so that knowledge gained will be further improved.

For Curriculum Designers

Nowadays, teachers are compelled to integrate ICT in their teaching process. Thus, variations of teaching methods through the use of the different forms of technology or the current trends in education should be reflected in the curriculum guides since the students we have today are characterized to be "technologically savvy" individuals.

For School Head

In promoting a student-centered learning environment, variations of teaching strategies should be reflected in the School Improvement Plan (SIP) to provide quality education that caters to the different learning needs of the learners. As part of the Teacher's Individual Performance and Commitment Review Form (IPCRF), the principal could thus monitor teachers' use of different teaching methods, specifically this kind of teaching approach.

For Future researchers

Those who plan to pursue the same study may consider using this approach in teaching a particular lesson with respect to their area of specialization to find further results that will contradict or agree with the present study. Future researchers may consider the suggestions presented in the focus group discussion and may conduct a similar study in a different setting such as in a private learning institution.

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