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Classrooms on the Go: Flipped Instruction in Higher Education EFL

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Abstract: In this research project, the effect of flipping grammar instruction was examined in terms of student motivation and achievement. Thirty five female university English students took part in this study. They watched video lesson explanations about specific grammar points out of class and completed assignments during class time using Book Widgets. Students reported higher motivation in this type of learning environment as compared to a traditional setting. While motivation levels showed improvements, exam grades showed less significant increase. Overall, students exhibited positive feelings towards the flipped instruction methods and enjoyed the benefits of the experience of having control over their own learning and being able to go over the materials as many times as necessary for deeper learning.

Keywords: Flipped instruction, Student motivation, Learner autonomy, Ubiquitous learning, Mobile Technology

INTRODUCTION

As mobile learning becomes the mainstream, more and more students are taking responsibility for their own learning. They are demanding the support they need depending on their situation and educational context. Individualized attention and instruction are made possible in classes because teachers are using the new technologies available to provide the learning support their students need, when and where they need it. With many eachers flipping their classrooms, the actual class time is shifting to a place for discussion, group work, and personalized attention and assistance from teachers (Springen, 2013).

Essentially, flipping the classroom is not a new concept. In the past, teachers would ask their students to read a text at home before coming to class and then use class time to discuss and solve related problems. What's new is the technology. Now, we ask the students to watch videos instead. With technology, non-traditional instruction becomes sustainable. It is timeless, versatile, personalized, and mobile. Providing mobile access to knowledge, materials, and instruction is imperative for the current and future mobile generations to keep them engaged and interested in learning. El-Hussein & Cronje (2010) state that mobile devices are responsible for the eradication of traditional classrooms. They transcend the boundaries of the physical learning institutions, classrooms, and lecture halls; their efficiency lies in that they are ubiquitous.

Statement of the Problem

This research project focuses on the effectiveness of flipped classrooms. We have found there is a need for more research studies on the practices, opportunities and quality of instruction in flipped classrooms, and on the role of the teaching faculty as well as the learners in these types of classes. As the available research on the effectiveness of flipped classes is still limited, the researchers will use the general guidelines for effective teaching practices in referring to a framework of best practices.

The aim of this research is to lead to developments in teaching practice by examining an alternative approach to teaching using mobile technology. This research also aims to develop alternative methodology addressing time constraints instructors/lecturers experience in class. Class time is used to cover topics that could easily be dealt with by the learners on their own time outside the classrooms; whereas, class time could be saved employing mobile technologies in an alternative teaching/learning approach.

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PRIMARY RESEARCH QUESTIONS

- How do faculty/student interaction and engagement in flipped classrooms compare to the same in traditional instruction classes?
- What recommendations should be made to teaching faculty concerning the effectiveness of flipped classrooms?

HYPOTHESIS

With the introduction and implementation of flipped grammar instruction techniques using iBooks, PowToon videos, and Book Widgets, student classroom performance, formal assessments of grammar, and student engagement would increase.

LITERATURE REVIEW

The concept of the mobile flipped classroom is a relatively new phenomenon in education. It builds upon the peer teaching strategies, which began to come to light in the 1990s (Thompson, 2011). The concept of flipped instruction began as a result of the marriage of mobile technology and the tech abilities of savvy educators who wanted to transform the classroom.

According to Thompson (2011) flipped teaching reached its maximum popularity because of one man, Samuel Khan, who endeavored to provide tuition to his younger relatives online, at a distance. As such, he developed videos for them which they would watch alone as he uploaded them online. These videos became substantial in number that he had to catalog them, which eventually led to his developing a website called "Khan Academy." Soon after that, other educators began to investigate the value of flipping their classrooms as opposed to mainstream traditional lectures and to experiment with their own classes. Soon, the idea of using online lessons became very popular as a way to support education. The term "Flipped Classroom" was coined by Jonathan Bergmann and Aaron Sams, two high school chemistry teachers from Colorado, USA, who began flipping their classes in 2007. Since then, the flipped model has spread to many other educators, institutions, and content areas worldwide.

In sum, flipped instruction forces educators to rethink and reevaluate their learning environments and how to allocate their class time to best provide for their students.

Defining the Flipped Classroom

Bergmann and Sams (2012) define the flipped classroom as a classroom where what was traditionally done in class is now switched with what was done at home. So, students prepare the lessons at home as homework and complete in class the practice. A similar definition of the flipped (or inverted) classroom is given by Lage, Platt, and Treglia (2000, p. 32): 'Inverting the classroom means the events that have traditionally taken place inside the classroom now take place outside the classroom and vice versa'.

Additionally, Bishop and Verleger (2013) highlight that although this definition reflects the rationale for using the terminology inverted or flipped, it may imply that flipped classrooms are solely a rearrangement of classroom and at-home activities. They describe the flipped classroom as an educational technique that comprises two parts: interactive learning tasks conducted and monitored by the teacher in the classroom, and direct computer based asynchronous video lectures and close-ended problems or tests individually completed outside the classroom. Thus, it is described as an expansion of the curriculum based on student-centered learning theories derived from the works of Piaget (1967) and Vygotsky (1978).

Finally, according to Berrett (2012), flipped classroom instruction does not allow students to passively receive information and material in class, which may cause some students to dislike flipped learning. Students are expected to gather the information mainly outside of the class through reading texts, watching given videos or listening to podcasts. Once they come to class, students should spend time working on tasks, solving problems and the teacher should monitor, detect and clear out possible misunderstandings as they come up. This way, the students are sent home to work on the next topic rather that left struggling with what they have just studied.

Benefits of the Flipped Classroom

Strayer (2007) states that teachers use a variety of methods as they prepare online material. He observed that when the focus of the flipped instruction is on allowing learners to interact with the content based on their individual learning styles, the flipped model appears to be more successful. They become more aware of their own learning process compared to the students in more traditional classrooms.

According to Berrett (2012), through a well-designed flipped class, students learn how to think and educators learn what the students are struggling with as they monitor the production stage inside the classroom. Such classrooms let students study at their own pace and schedule. Another benefit Berrett points out is that large class sizes and high student-to-teacher ratios caused by economic forces may become manageable and less important when flipped instruction is adopted. He argues that with the development of technology the supply of such offerings at no cost is increasing. He maintains that if used efficiently, flipped instruction may allow colleges

to use their facilities and their faculty's time and expertise more appropriately.

In addition, Roehl (2013) states that flipping classrooms permits teachers to be creative and to use a variety of teaching methodologies. They may design activities by simply videotaping themselves while teaching in the class, by creating web-based videos with voiceover and screen capture applications and provide students with links to ready-made videos from online sources such as TeacherTube or YouTube. Roehl (2013) argues that this promotes teacher-student communication and connection with students who have a broad range of abilities.

An additional benefit is that flipped instruction allows the class to move forward in spite of student and teacher absences as students have access to classroom content and they can stay on track without making any effort to gather the material. Thus, the courses progress as scheduled without avoidable delays (Roehl, Reddy & Shannon, 2013).

Theoretical Frameworks for the Flipped Classroom

- ***Active Learning***

Prince (2004) defines active learning as, "any instructional method that engages students in the learning process" (p. 323). This definition is in itself broad enough to include many traditional classroom activities such as lectures (where students are taking notes, discussing, or asking questions) as well as any new methods such as the flipped model.

As such, student centered learning theories are very important when looking at the flipped classroom. Without these theories, the flipped classroom cannot exist. Since the flipped classroom is made up of two components: one element that requires human interaction (in-class activities), and a second factor that is automated through the use of mobile technologies such as video lessons (outside activities), it is a perfect example of an active learning environment. In this setting, the classroom component is critical because the student-centered theories are the basis for the design of the face-to-face activities. It is important not to link the flipped classroom solely on the presence of computer technology such as video lectures. This would be erroneous since it is the pedagogical theories of student-centered classrooms and in class active learning experiences that ultimately determine the success or failure of the flipped experience (Prince, 2004).

- ***Problem Based Learning***

Hmelo-Silver (2004) describes problem-based learning (PBL) as a teaching method in which students learn through solving a problem. Learning occurs as students work collaboratively on a complex problem that does not have a single correct answer. They are expected to work in groups to pinpoint what they have to learn in order to solve the given problem. After the self-directed learning (SDL) stage they are anticipated to apply their new knowledge to the problem as well as to reflect on what they learned and the usefulness of the strategies they followed. There are five major goals in PBL aiming to help students develop (Hmelo-Silver, 2004); "1) flexible knowledge, 2) effective problem-solving skills, 3) SDL skills, 4) effective collaboration skills, and 5) intrinsic motivation."

According to Barrows (1996) corresponding to the above goals, there are six characteristics of problem based learning: Learning is student centered, which is the essence of the flipped model; learning occurs in small study groups, this again is a main feature of the classwork in the flipped classroom; teachers' responsibility is to facilitate and guide students rather than to provide knowledge, this shift is also evident in flipped instruction; problems shape the focus and motivation for learning; problems are the only tools for the development of problem solving skills; and new information is acquired through self-directed learning, all of which are exact features of flipped classroom instruction.

An additional list of expected skills that a well-designed PBL project would enable students to develop is listed by Nilson (2010, p. 190): learning to work in teams, taking leadership roles, improving oral and written communication, creating self-awareness and evaluating group processes, independent learning skills, critical learning and analyzing skills, understanding and expressing concepts, self-directed learning, trying out course content in real life, research skills, solving problems across disciplines. All the skills listed for PBL suit the flipped classroom and vice versa.

- ***Differentiation and Learning Styles***

Differentiation is based on the idea the students learn in different ways and should be given the chance to demonstrate their competencies in a variety of ways. The basic premise of differentiation is in the constructivist theory, which focuses on the importance of student-centered and active classrooms (Tomlinson & Allan, 2000).

According to Anderson (2007), differentiation allows for a learning environment where students are valued for their own learning style and where they take responsibility for their own learning. In differentiated classrooms, students are encouraged to be autonomous and to make their own decisions in order to demonstrate their abilities. With that said, Tomlinson and Allan (2000) define differentiation as "a teacher's reacting

responsibly to a learner's needs" (p.4). To elaborate, teachers who differentiate effectively recognize the differences in the students and can differentiate on three levels: content, process, and products. 'Content' deals with input and how students learn, 'Process' addresses how they connect ideas, and 'Products' is how they demonstrate their learning (Tomlinson, 2001).

Independent learning is a major component of differentiation. One method to achieve independent learning while differentiating is through the flipped classroom. According to (Tomlinson, 1993) the goals of differentiated instruction include independent study, new thought, and production. Students work on developing their skills, making their own decisions, and carrying out and producing their own work all at their own pace. Independent study is greatly valued among educators because it allows the students to work autonomously and at their own pace (Powers, 2008).

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METHODOLOGY

Research Design

This study adopted a post-test and a motivational quasi-experimental design to examine the impact of flipped teaching on student learning and engagement in English grammar classes in an EFL context through teacher-created iBooks with videos and widget practice. The independent variable was the flipped classroom approach with two different formats of instructional design: structured units of flip lessons in the form of iBooks (experimental group 1 & 2), and non-flip lessons conducted in relatively traditional manner (experimental group 1 & 2). The above two formats of instructional design were carried out in three separate stages. The dependent variables were the students' academic performance (as measured by end-of-lesson assessments and widget results), learning motivation and engagement (as measured by the post-learning experience questionnaire survey), and participation levels (as measured by the lesson practice logs on the students' out of class study time through widgets). Both quantitative and qualitative data were analyzed in this study to gain insights into the EFL learners' flipped grammar class experiences.

Participants

The participants in this study ($N = 35$) were intermediate level Arabic-speaking first-year university students in a foundations program in the United Arab Emirates. Their study load was 20 hours of core intermediate-level English language classes per week. Their ages ranged from 18 to 21. They were enrolled in two class sections at the same level with different instructors. All the students in this study were Emirati. The length of their exposure to English instruction ranged from 2 to 4 years. The sample consisted of 35 females and 0 males, as the research was conducted in a all-female university.

Procedure

Application And Web-Based Program Selection Process

The application and web-based program selection process took around two months. Videos of colleagues, business people, advertisers, lecturers, and speakers on a variety of topics, released on the web were carefully examined. A shortlist of programs and applications used in the make of these videos were noted to be trialed. Shortlisted applications/programs were used during class time, these included Edmodo and Facebook private groups to create safe online learning communities for the classes and to share material and carry out discussions, Explain Everything to share information, Notability/Adobe to annotate written work, Popplet for brainstorming using drawing and images, Showbie for

sharing material with students, and iMovie to create videos. Although many of these applications were found very useful in terms of language learning and teaching and creating safe learning communities, this research aimed to use alternative applications that would allow creating material students could directly download and use at their own conveniences. To achieve this aim, a checklist (see Table 1) was created by the researchers as a guide while trialing the shortlisted applications and web-based programs.

Table 1. Application and web-based program selection criteria for flipped materials.

Application and web-based program selection criteria for flipped materials				
	Powtoon	iBooks	BookWid-gets	iBooks Author
Self-explanatory	✔	N/A	✔	✔
Fast (teacher production stage)	✔	✔	✔	✔
Fast (learner usage stage)	✔	✔	✔	N/A
User-friendly	✔	✔	✔	✔
Downloadable (Fast)	✔	✔	N/A	N/A
Works offline on learner iPads	✔	✔	✔	✔
Different/cutting edge	✔	✔	✔	✔
Sends data to teacher when learner is online	✗	✗	✔	N/A
Allows teacher to follow student progress when online	✗	✗	✔	N/A
Different/cutting edge	✔	✔	✔	✔
Free to download (teacher)	✔	✔	✗	✗
Free to download and access produced material (student)	✔	✔	N/A	N/A
Culturally suitable	✔	✔	✔	N/A

During the trial, ways to use iPads for flipped learning were explored. Instead of the traditional teaching instruction, we decided to follow a low impact blended model. The benefits listed in employing a low impact blended learning model for this study are in line with the benefits identified by Alammary, Sheard and Carbone (2014). Low impact blended learning model is a quick way to produce blended learning courses. Teachers can directly add a new activity that is suitable and meets the course learning objectives without consuming too much time and effort in rethinking and designing the whole course. In general when it comes to teaching a blended learning course, three areas are identified as problematic by teachers; fear of receiving lower student evaluations, fear of losing control over the course, and uncertainty about the impact of online learning on classroom relationships. Thus, adding one activity while keeping the traditional course almost the same can minimize these risks that teachers fear. More importantly, minimal experience in teaching the traditional course is enough to design the blended course (Alammary, Sheard & Carbone, 2014).

The video-making website, PowToon, was selected as a tool for making professional flipped instruction materials.Another application selected for use was Book Widgets because it allows users to create engaging worksheets, simulations, games, and tests in minutes for iPads. A final application employed in this research is called the iBooks Author application that comes with the MacBook Pro, which enabled us to create downloadable interactive textbooks. It is worth mentioning that students need to download the iBooks application on order to download and access the iBooks created by the researchers/teachers.

Project Application:

The research of flip teaching in language learning in higher education context takes a close look at the impact of teaching lessons at home and inverting the traditional classroom practices. In other words, the learner covers the work that is traditionally done to learn a subject in class at home; class time is spent for further practice/homework. This research was carried out over a period of twelve weeks and divided into three phases: a preparation phase for technology training and orientation, and an instructional phase for implementation.Overall, this research project is divided into three stages.

Stage 1: Input Preparation

The first stage is the input stage where the grammar areas that need to be covered based on the current learning outcomes of the language syllabus were identified. Six grammar points and their usages were determined as flipped material topics. These are relative clauses, present tense as future, conditionals 0, 1 & 2, active and passive voice, gerunds and infinitives and present perfect (see Table 2).

The same grammar topics were to be delivered to both experimental groups simultaneously regardless of the instructional design. The second step was to decide on the tools to deliver these grammar topics. Aiming to make them culturally correct, context sensitive, and student friendly in addition to addressing different learning styles, iBooks with animated videos and widgets inserted were chosen for meeting all the criteria. Each iBook focused on one aspect of English Language grammar.

Table 2. Distribution of grammar topics over the semester

Weeks 1-2	Present simple as future
Weeks 3-4	Present perfect
Weeks 5-6	Conditionals 0-1-2
Weeks 7-8	Relative Clauses
Weeks 9-10	Gerund-Infinitive
Weeks 11-12	Active –Passive Voice

The third step was to decide on the length of the videos. To keep the subject focused and to the point, the videos explaining the content area were preferred to be between two to four minutes. This would minimize learners' loss of concentration while studying the flipped material and encourage learners to spend time watching the videos without demanding too much of their personal life. The aim was to come up with achievable flipped material. A video animation website called Powtoon was chosen to create the videos and animation characters were used mainly to eliminate the risk of cultural mishaps considering the conservative nature of the region. Most young adults usually like cartoon characters, and such animations do not get criticized for any inappropriateness. To differentiate the videos so that they address different learning styles, they were produced in two separate styles. The first group of videos were produced without cartoons but with pictures and written explanations. To maintain a flow, the other type of videos, shared story characters and in each video the same characters were given the task to explain the content area in context. Having context in some of the videos helps student participants feel engaged and motivated. No human voice or characters were used to keep students focused on the explanations and not get distracted by the voice tone, different English accents, or human physical attributes. Music was added to the videos with the option to mute, with respect to religious preferences, as some learners do not listen to music at all. The scripts were written accordingly.

The next step was to create controlled and semi-controlled practice activities using widgets. Two to three different widgets with practice material for each grammar point were created to be used in stage two. Next, all relevant videos and widgets were inserted into iBooks and the ibooks were formatted for unity. In the end, six iBooks that cover the grammar curriculum objectives of the program's intermediate syllabus were ready to be used as part of flipped teaching practice.

The iBooks were placed in class folders on two common storage sites, webdav and dropbox. Students were asked to download the relevant iBook onto their iPads/mobile devices before leaving campus. They were asked to watch the videos and take notes about the content area before they come to their next class. This is a crucial point in our research as we noted that some of the female students either do not have Internet access at home or are assigned to do other chores at home. Thus, they are not able to spend much time studying. Having them download the iBooks onto their mobile devices brought flexibility to this issue. They were able to watch the videos without an active Internet connection. Moreover, they were able to study any time even on their way back and forth to university.

Stage 2: Implementation

Stage two is the actual implementation of the classes. For a semester, two intermediate level classes participated in this study. One class had flipped instruction for the first half of the term, while the other followed traditional instruction in the meantime. In the second half of the term, the process was switched. This allowed each class to receive equal learning opportunities in terms of methodology used. In each half of the term, the order of the grammatical items taught was not changed and the actual grammar curriculum was followed (see Table 3).

Table 3. Instructional Period Time Frame

Time Frame	Experimental Group 1	Experimental Group 2
Weeks 1-6	Flipped instruction	Traditional instruction
Weeks 7-12	Traditional instruction	Flipped instruction

Having watched the videos and taken notes, once the students came to class they were asked to complete the widgets and do further semi-controlled practice. As such, language production took spacing place during actual class time.

Stage 3: Data Collection

Stage three comprises of data collection. The data collection process is founded on various evidence collection tools. The first one is data based on the results of grammar activities that learners complete and submit using widgets.

The widget website sends the data to researchers' emails once a student completes the activities. This allows the researchers to follow student completion and success.

After learners submit their completed widgets, the system allows them to view the correct answers, and receive immediate feedback. This way, the learners get to understand how much they have grasped. Secondly, the data collection included test scores from both models of instruction to allow comparison. Thirdly, researchers kept journals in which they noted their experience and observations. Finally, a survey (see Appendix 1) on student preferences and experience was conducted at the end of the course using Survey Monkey. In addition, students were given the option to reflect in Arabic in class, as the co-investigator of this research is a native Arabic speaker.

This increased the amount of communication between students and researchers.

DATA RESULTS AND ANALYSIS

A. Results of the Summative Assessment

The results demonstrate that the majority of the students scored higher in the flipped model in weeks 1 – 6 as seen in Table 4 below. Interestingly, there was not a significant difference in the results of the grammar exams. Looking at the scores specifically, in the flipped instruction the average for the Present Simple as Future exams was 84.5/100 as opposed to 82/100 in the traditional class. A lesser difference can be found in the average of the second exam on Present Perfect tense, which showed a variance of only 1 point between the two groups at 79/100 and 78/100 for flipped vs. traditional respectively. Intriguingly, the Conditionals garnered a higher average score in the traditional class at 86/100 as opposed to 84/100 in the flipped class.

Table 4. Weeks 1-6 Summative Assessment Results
Weeks 1-6

		Average	Highest score	Lowest score
Flipped Instruction	Present Simple as Future	84.75	93	69
	Present Perfect	79	97	60
	Conditionals	84	100	67
Traditional Instruction	Present Simple as Future	82	95	66.5
	Present Perfect	78	98	62
	Conditionals	86	92	76

As for weeks 7 – 12 in Table 5 below, the results similarly show an overall higher average in the flipped instruction classes as opposed to the traditional lessons. Looking closely at the results, the scores for both the Relative Clauses and Active-Passive voice were higher at 88.9/100 and 84.79/100 as opposed to 87.72/100 and 83.2/100 respectively. However, there was a slight difference in the Gerund-Infinitive exams average in favor of the traditional instruction model at 88/100 in contrast to 86.84/100 for the flipped model. A notable result is that in weeks 7-12, all of the lowest scores were higher in the flipped instruction, which is a strength to the model.

Table 5. Weeks 7-12 Summative Assessment Results
Weeks 7-12

		Average	Highest score	Lowest score
Flipped Instruction	Relative Clauses	88.9	91	64
	Gerund-Infinitive	86.84	100	79.5
	Active–Passive Voice	84.79	90	71
Traditional Instruction	Relative Clauses	87.72	89	61.67
	Gerund-Infinitive	88	100	68.45
	Active–Passive Voice	83.2	91.4	66.35

B. Results of the Student Survey and Feedback Comments

In response to the question of when they watched the videos, the feedback was generally positive with 43% answering that they watched their videos as instructed at home in the evenings. Conversely, 20% answered that they watched right after class and an equal 20% also said on campus during their breaks. Additionally, 23% indicated "other" with comments of examples of places such as on the bus, in the cafeteria, and at a friend's house.

These variables relate to individual differences with most the group responding favorably to watching in the evening times in their own homes. The results can be seen in Figure 1 below.

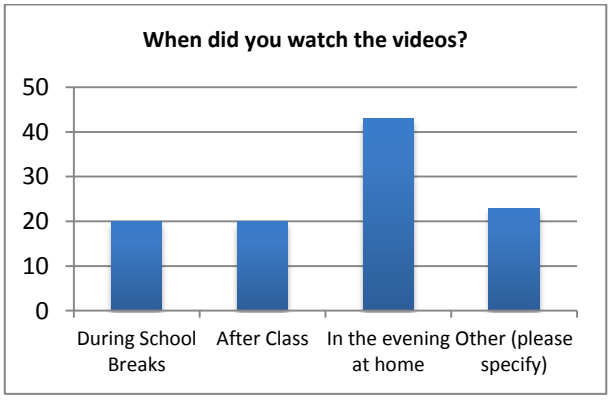

Figure 1. Time of Watching the Videos

Opinions relating to whether or not they enjoyed watching the grammar videos, as seen in Figure 2 below, show 83.3% found the videos enjoyable; almost 4% said they didn't. In terms of those who answered "No", some example reasons given were "Because there is a lot of words", "I like to hear not read", "Because I like videos that someone talk to understand" and "Because I don't like watch a grammar video."

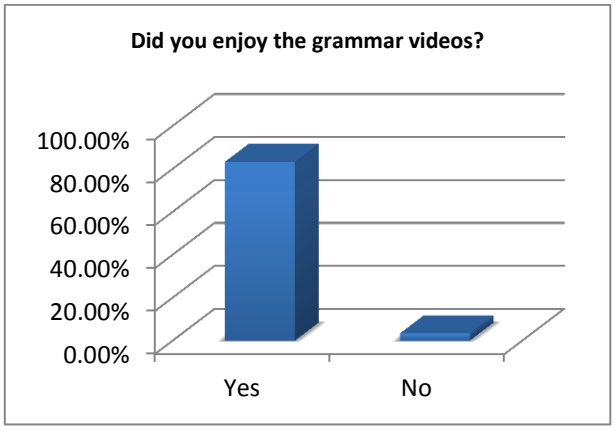

Figure 2. Enjoyment of the Videos.

In terms of the value of the videos in helping them better understand the grammar lessons, 70% of the students said that they found the videos useful and helpful. 30% were undecided and 0% indicated that the videos were not helpful. Looking at these results in Figure 3, it can be surmised that students who were not sure of the value of the flipped grammar videos, did not see them as negative.

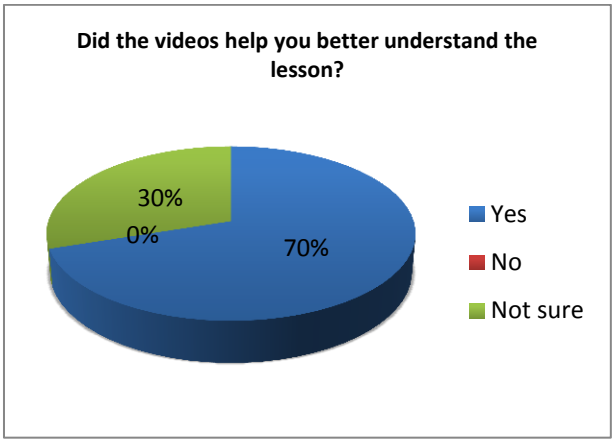

Figure 3. Understanding the Lessons.

As for recycling the videos as a source of revision materials before the quizzes, as seen in Figure 4 below, responses were far closer with 56% finding the videos very useful as recycling materials and using them as such and 43% not using the videos as recycled materials for revision. So, whilst some of the students were skeptical about the value of the videos and their specific usefulness as a source of review material, many the students were aware of the versatility of the video content.

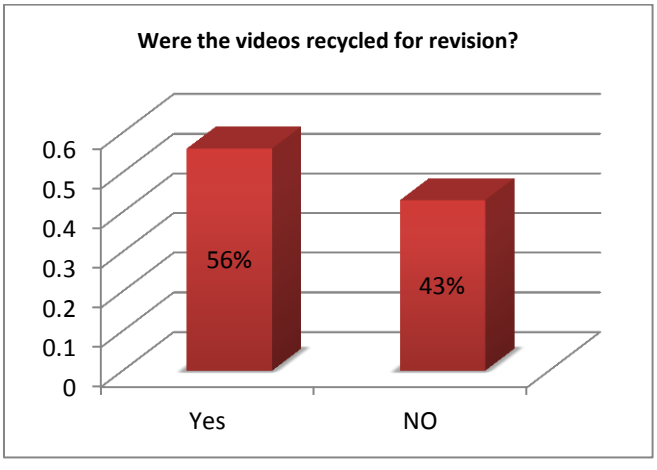

Figure 4. Recycling of the Videos.

Finally, in terms of watching the videos before coming to class every time as instructed by the teachers, 83.33% indicated that they did, while 13.33% did not. These results, as seen in Figure 5, give insight into the motivation and engagement of the students during this study.

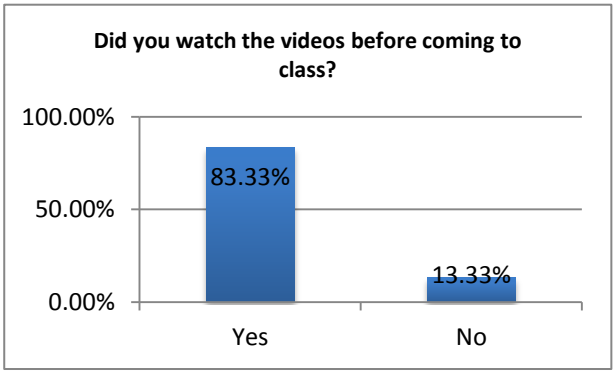

Figure 5. Preparation Outside Class.

Regarding the students' comments in the open-ended questions about the videos themselves and the perceived value of using the flipped instruction, most the participants indicated that they liked the videos and found them useful. Some students asked for the videos to be longer. On average, the videos for this project were 4-6 minutes. Others expressed their preference for voiced explanations and said that they do not want to read, but they prefer to listen. This could be attributed to their learning style. The chosen cartoon format for the videos was also well received with students' indicating that the videos didn't "feel" like studying, but rather watching cartoons. All in all, the student comments were positive concerning the videos and their usefulness.

To sum up, the overall results indicate that although the summative assessment scores between the flipped instruction and the traditional instruction did not show a significant difference, it is still more favorable for the flipped classroom. The students' comments in the survey indicated their positive attitudes towards the flipped class and their higher engagement in watching the videos and spending the time they need to outside class on their own preparation.

LIMITATIONS OF STUDY AND FUTURE RECOMMENDATIONS

The limitations of the study are size of the sample (N=35) and relatively short period of time over which the study was conducted (12 weeks). Recommendations for future research would include a longer research period and comparisons with other classes and across other academic disciplines. An additional limitation is the type of summative assessment given to the students at the end of these lessons. It was not possible for the researchers to design their own assessment, but rather they were confined to using the standardized multiple choice grammar assessment dictated by their department. An expansion of this research would be changing the type of assessment to a more productive format rather than out-of-context multiple-choice items, to evaluate the effectiveness of the instruction model.

Further opportunities of research would also involve considering the teachers' perceptions of the flipped instruction process and how they view their shifting role in the 21st Century classroom. Another issue would be their perceptions of managing the flipped classroom process in terms of the practicalities of its facilitation, benefits and limitations.

CONCLUSION

The current research study investigated the impact of flip teaching on student proficiency in English grammar performance as well as their in-class engagement and motivation. The working hypothesis was that student performance and their engagement would increase in class activities. It was also anticipated that student summative assessment performance would increase because of the flipped instruction model.

The findings showed that the participants involved in the flipped lessons experienced an increase in their motivation and engagement as well as slightly higher results on their grammar exams. The significant gains seen in the lower achievers in the participant sample also highlights how the flipped instruction model can be of value in terms of differentiation and individualized instruction. These students were instructed to watch the videos and prepare the materials before class at their own pace. As a result, their classroom performance and engagement changed significantly. With that said, the flipped classroom model is a strong method for differentiating instruction and fostering student autonomy and learner-centered experiences in and out of the classroom and as such, it is this research's recommendation that teaching faculty embrace and attempt flipping their classes for the benefits of their students.

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