



## The Effect Using Flipped Learning on the Vocaulary Yield and the Motivation Among Students in the Preliminary School

Ahmed Najm Abed, Taif Abdulhussein Dakhil

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### Abstract

*The purpose of this study is to determine whether implementing the flipped classroom approach may enhance vocabulary learning and boost young students' enthusiasm to learn English. The purpose of the study is to highlight the advantages and disadvantages of the flipped learning paradigm. The fourth-grade kids at this school, who had never before been taught using flipped methods, served as the sample for the study, which was carried out by selecting a preparatory school in Al-Diwaniyah, Iraq. The forty students were split into two groups of twenty, each, and were taught using flipped teaching methods in one group and the traditional approach in the other. In order to compare the results against the conventional lecture format based methods, the research used the flipped learning method, which involves asking students to acquire and learn vocabulary through technological means, such as online videos, computer based teaching materials (interactive learning), and leaving the time in the classroom for interaction.*

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### Introduction

The technological era forces advancement in all area of life, including education, which shapes the trajectory of national development. A nation that strives for progress constantly seeks out innovative teaching techniques that stay up to date with technological advancements and elevate students' educational attainment to facilitate their contribution to the advancement of society. (Cockrum, T., 2013)

According to Cockrum's research, flipped learning offers struggling students the opportunity to receive the necessary attention, and it allows him to provide different kinds of evaluations based on the academic level of each student. ( Green, G. , 2012).

He also mentioned that Clintondale High School in Michigan decided to flip its ninth grade, which led to a 33% decrease in ELA class failure rates by the end of the first semester and a 28% increase in writing and a 34% increase in reading scores by the students by the end of the second year on the Michigan Merit Exam.

Active learning reduces exam pass rates by less than half, according to research on flipped learning and other contemporary teaching methods. The results of the heterogeneity studies show that: Achievement improvements occur in all STEM fields, in all class sizes, in all course kinds, and at all course levels. Active learning improves performance on concept inventories and works well in small classes. ( Ruiz-Primo, M. et al , 2011 )

With flipped learning, children who were born between 1982 and 2002 can receive instruction using a cutting-edge method. ( Wilson, M., & Gerber, L. E. , 2008). Due to their early exposure to technology, students who are referred to as "digital natives" have certain challenges. As a result, educators and other educators are under pressure to develop more innovative teaching strategies so that the generation of millennial digital natives can learn in an efficient manner. ( Prensky, M. , 2001).

## **2. Literature Review**

In traditional instruction, the teacher's job is to lecture the students through the material and they take notes to refer to later when working on homework assignments. This makes the students passive learners who struggle to complete their assignments. (Shimamoto, D. ,2012) . The term "flipped learning" refers to a method of education in which students get the lecture material electronically at home while participating in hands-on activities in class. The flipped classroom is a well-known as an inventive and successful teaching method. By substituting at-home practice time for in-class lectures, it completely undermines traditional instruction. The effectiveness of the flipped classroom has been determined, along with the difficulties encountered during the process. These difficulties were reflected in the demand for efficient in-

class learning methods and the requirement to support children' learning in both home and school environments. ( Arnold-Garza, S. ,2014).

In secondary education, flipped classrooms are frequently employed, and in recent years, their use in higher education has grown. Many universities undertake numerous studies to examine flipped learning and its implementation and effect in upgrading the quality of higher education because of its effect in improving education.

The idea of a flipped classroom developed from earlier blended learning models, carrying on the popularity of MOOCs (massive open online courses) and remote learning. This idea is also known as blended learning, post-lecture classroom, inverted classroom, and condensed classroom. ( Bergmann, J., & Sams, A. , 2012). Teachers using flipped classrooms around the world concur that practice in general, in addition to instructional videos, is what creates the impact. "Students can't just watch the video and be done with it," according to Bergmann. He goes over what they wrote in their notes and invites any student who has a question to come to class. Additionally, he notes that although it takes some time for pupils to adjust to the method, as the year goes on, he observes that they are becoming more critical thinkers and asking better questions about the material. Bergmann claims he can now more readily question specific pupils, look for misunderstandings regarding scientific ideas, and dispel false beliefs after flipping his classroom.

(Tucker, B. , 2012).

The goal of learning a second language for kids should not be to satisfy their social requirements, but rather to support their academic and linguistic growth, particularly in the context of accountability standards. This is what the second language acquisition scholars suggested should be included in the new teaching methods. According to Cummins, this possibility is cognitive development, which is essential for academic achievement. ( August, D., & Hakuta, K. ,1997)

The academic language proficiency skills include those that deal with applying vocabulary to create new language structures for the purpose of expanding vocabulary and improving comprehension.

For English language learners, vocabulary knowledge is a prerequisite to fluency and reading comprehension, hence it is the primary indicator of a student's reading competence. ( Grabe, W. ,1991).

The development of increased flexibility in the use of the English language; learning words (vocabulary) in context; determining the significance and unimportance of text events and details; opportunities to respond more skillfully to texts orally; and promoting student conversations about texts are other specific areas of language and literacy competency that are crucial to the development of language and comprehension skills for English language learners. ( McLaughlin, B. , 1987). Anderson and Roit asserted that these competencies are vital but frequently overlooked in language and literacy training for ELLs. They further argued that the development of these competencies will result in both higher levels of oral language proficiency and improved comprehension skills.

The development of vocabulary knowledge has several facts:

Vocabulary knowledge is one of the most crucial prerequisites for reading comprehension. One way to see this relationship is to think of vocabulary knowledge as a measure of overall linguistic competence, which characterizes the learning process (Anderson, V., & Roit, M.,1998). The vocabulary of impoverished children is lower than that of wealthy ones. Preschoolers experience this lexical knowledge gap, which grows during the school years and ought to be associated with underprivileged schools (Au, K. H., 1993).

The vocabulary yield of children with average and above average verbal ability who enter preschool with almost 5,000–10,000 words is highlighted in Hart and Risley's study on the development of children's vocabulary during the first three years of life. In contrast, other children enter school with fewer words due to economic circumstances, as those children were exposed to fewer words and had low vocabulary development during the first years. Early verbal knowledge has a big impact on young children's phonemic awareness development, which is a crucial emerging literacy skill Sternberg ( R. J., & Powell, J. S. , 1983). A key component of learning English successfully is having a strong vocabulary. ( Coyne, M. D., et al , 2004).

Vocabulary knowledge based on what is being read constantly affects comprehension reading and learning because certain terms are more common in factual topics like science, social studies, or math than in literature. Academic vocabularies are collections of words with particular meanings that are distinct from general interpretations of even the same terms and are frequently essential to comprehending content areas. These specific definitions of academic words frequently mirror the biggest obstacles faced by English language learners. ( Goswami, U. , 2001).

In flipped classrooms, the instructor provides feedback while guiding the students' thought processes. The advantages of self-learning include improved problem-solving skills, willingness to study, and effective communication. In this instance, the students assume the role of active learners and benefit from the assistance provided by the teacher to clarify pertinent topics. Instead than being instructors, teachers are now assistants and facilitators. The ideas of technology teaching have moved from the application at school to self-learning at home as the flipped classroom concept gains more and more traction. Homework and self-practice translate into interactions between classmates, teachers, and other pupils at school. ( August, D., et al , 2005).

One of the most crucial aspects of learning English is learning vocabulary. Since its development and implementation in the educational process, particularly for the study of foreign languages, flipped learning has garnered a lot of attention.

Flipped learning helps produce more vocabulary than standard teaching methods by overcoming the unidirectional, irreversible vocabulary knowledge of passive learning. Flipped learning is theoretically appropriate for English language acquisition in collages.

Three methods of learning were identified by the "Experience Tower" hypothesis; these methods are referred to as doing, observing, and symbolizing, and they are illustrated in (Table 1) The most specific, straightforward, and readily understood level of action is at the bottom, and the more abstract and higher, the harder it is to understand.

Conventional lecture instruction employs the top-level "language symbol" teaching approach, which results in very low learner participation and brain activation—that is, a mere 5% of students retain the material. Retention can be raised to 30% with context-based audio-visual and presentation techniques. Specifically, well-designed teaching environments are used in this study's experimental group vocabulary teaching to help learners improve their comprehension and long-term memory through a variety of audio-visual presentations and learning resources.

According to the "Experience Tower" theory, doing is participation, application and design activities. By this learning concept, the knowledge that the learner gain increases by about 50% to 90%.

Encouraging learners to apply newly acquired vocabulary aids in their retention of it. That's what occurs in a classroom that has been flipped.

| Ways        | Information presentation      | Average retention rate |
|-------------|-------------------------------|------------------------|
| symbolizing | language                      | 5%                     |
|             | symbol                        |                        |
|             | visual symbol                 | 10%                    |
| observing   | recording, broadcasting       | 20%-30%                |
|             | movie, TV                     |                        |
|             | visit the exhibition          |                        |
|             | travel                        |                        |
|             | observe demonstration         | 50%                    |
| doing       | design                        | 75%                    |
|             | participation and application | 90%                    |

**Table: 1** the ways by which Knowledge can be gained.

Conversely, the conventional methods of instruction engage students with monotonous, single-minded visual and verbal symbols without considering their unique learning styles, which has an impact on their vocabulary acquisition (Folse, K. S., & Briggs, S. J., 2004). Kamil and Hiebert (2005) defined vocabulary as the understanding of words and their meanings in all of their forms. (Nation, I. S. , 2001).

According to Hiebert vocabulary is learning of words and word implications. Firstly, words come in two structures: oral and print. Secondly, word learning additionally comes in two structures: receptive and productive ( Goldenberg, C., et al , 2005).

According to Hornby (1987), vocabulary can be defined as the entire list of terms in a language, the words that a person is familiar with, the words used in a certain book or subject, or a list of words along with their definitions (Graves, R., & Graves, H., 2006). However, according to Jackson and Amvela (2000), the terms "lexicon," "words," and "vocabulary" are interchangeable (Hickman, P., et al., 2004).

A suggested program based on flipped learning to develop mathematical structure components and learning motivation among kindergarten prospective teachers is one of the many studies that have been conducted on the subject of flipped learning. Abd El-Nasser Mohammad Abd El-Hamid Abd El-Bar, a researcher from the faculty of education at Menoufia University in Egypt, examined learning motivation among kindergarten prospective teachers in this study from 2017. He investigated the impact of flipped learning on learning motivation using a semi-experimental approach centered on the creation of a single group and the application of tools. The study demonstrated that applying the flipped learning paradigm had a significant impact on aspiring teachers. Although our study looks into learning motivation, the way we approached the problem

is different because we used both a descriptive and a field study to look into the same topic. ( Hwang, G. J., et al , 2015).

In a different study titled "Classrooms to Enhance Achievement and Learning Attitude," led by Ayman Mohamed El-ESery of Banha University's faculty of Education, the researcher looked into how new technologies used in flipped learning could improve students' learning attitudes and achievement in the subject of English. The study's focus on English-learning pupils is similar to ours, but it uses a different sample size and has limitations due to human nature. The study demonstrated that using the flipped learning approach to teach English had a significant impact on the pupils. ( Lee, G., & Wallace, A. , 2018).

The effectiveness of using flipped classrooms on tenth graders' grammar learning and motivation for English is the subject of a 2016 study by Samar Hassan Hamed El-Zaytonia from the Islamic University's faculty of education in Gaza. Her study, which used a different sample of students, matched ours in examining the impact of flipped classrooms on English language learners. Since our study is being conducted with the selection of students from preliminary schools, it has chosen the secondary school grades. ( Hiebert, E. H., & Kamil, M. L. , 2005).

The purpose of Allaa Mohammad Zayeb Kharis' 2017 study, "The Effect of Flipped Learning Strategy on Developing Critical Skills of Tenth Basic Grade Students in Islamic Education in Jordan," at El-Yarmouk University in Jordan, was to ascertain how flipped learning affected the students' critical skills. The study supports our investigation into the impact of flipped learning, but it contradicts it with regard to the study's sample and its findings. ( Nagy, W. E., & Hiebert, E. H. , 2010).

One of the flipped learning strategies involves the teacher providing the students with instructional materials such as podcasts, screencasts, and videos so they can study the fundamentals of the lecture at home. Meanwhile, the teacher supports the students' application of the concepts they have learned from the homework assignments to solve problems ( Howard, J., & Amvela, E. Z., 2000). The students' problem-solving activities during the sessions should be carried out in small groups in order to foster a community of peer learners. ( Abdul Barr, p. M. P. , 2017). El Esery, A. M., and Radwan, N. A. (2017) suggest that teachers of flipped classrooms should employ in-time teaching, an approach based on online questions, to adjust to any shift in the students' learning demands. The varying definitions of flipped classrooms in the literature are the reason behind the variation in their shapes; in academic definitions, there is less discussion

surrounding the definition, however in popular literature, there are numerous interpretations. (Olives, S. H. H., & Farwana, p. s. , 2016). Numerous published studies and literary works have illustrated the flipped classroom teaching and learning methodologies. While there isn't a single, agreed-upon term for the flipped classroom technique, numerous common literature definitions exist.

These characters are

- Different uses of classroom time.
- Different uses of outside class time.
- Using the in-class time doing activities which is considered as home work in the traditional learning.
- Using out-class time doing activities which is considered as in-class work.
- Using activities that enhance the problem solving motivation, and active peer learning.
- Pre and post class activities.
- Use of media technology specially videos

The flipped classroom is defined as a set of pedagogical approaches that:

1. The process of transmission of information takes place outside the class.
2. Social and active learning activities are made during class time.
3. Student are obligated to complete the activities of pre and post class time to achieve the fully benefit from in-class time.

### **Claims about the efficiency of the flipped learning:**

- Denunciation of traditional teaching ways.
- Claims about the reasons that the supporters of flipped learning implementation have.
- The nomination of the wanted technologies that are used to implement flipped learning if there are any.

Research on flipped classroom strategies has yielded mixed results on their effectiveness (Khreis, A., et al., 2017). Motivation from Within Social settings that increase a person's sense of competence while they are acting will increase their intrinsic drive to do that action, according to SDT. Yet, a sense of autonomy must coexist with feelings of competence in order to maximize intrinsic motivation (Abdul Ghani, K. I. N., 2016).

When a student chooses to complete the task under his own initiative, he will be more motivated to do it than a student who was required to complete it during class. Encouraging students to be



independent and competitive is crucial to raising their motivation levels. According to Milman (2012), the experiment provides evidence that social activities also contribute to an increased sense of security and relatedness. When completed in small groups and in a safe environment outside of the classroom, the activity may increase motivation and engagement. It is impossible to talk about motivation without bringing up the terms "engage," "engagement," or "student engagement. Students' participation involves a wide range of concepts that could be conflicting or unclear. ( Michaelson, L. K., & Sweet, M. , 2012).

the student who sees himself or herself as a member of and an active participant in his or her learning communities and who has a good, gratifying, and work-related frame of mind that is marked by vigor, devotion, and absorption

The traditional lecture is increasingly seen as a passive, ineffective experience that lowers students' motivation for learning and increases their sense of competence or autonomy. In this learning environment—I mean, the flipped learning environment—the teacher can feel capable and independent. ( Pierce, R., & Fox, J. , 2012). It was discovered that when a student is required to use creativity and conceptual thinking in order to complete a task, the student performs better in a controlled learning environment than in a more flexible one. ( Deci, E. L., & Ryan, R. M. , 2000).

The new flipped learning models aim to satisfy students' needs for competence and autonomy while also promoting greater student-teacher interaction. The new methods enable students to become active contributors and feel more connected to their educators and fellow students. The flipped learning approaches are appropriate for encouraging students' intrinsic motivation because they can satisfy their needs for competence, self-determination, and engagement.

The first presumption relates to how the flipped learning environment, which satisfies students' needs for competence and self-autonomy, significantly increases self-motivation. It is important to note that children discover their own motivation when the tasks they perform fulfill their needs by being innovative, difficult, or visually appealing

It has been discovered that as students advance from elementary to postsecondary education, their freedom to be naturally motivated decreases. It is discovered that just a small percentage of students attending modern higher education institutions are intrinsically driven. According to Ryan, R. M., & Deci, E. L. (2000), the great majority of students are motivated by extrinsic factors as a result of growing social pressures in their personal and professional lives.

Understanding the flipped classroom approaches requires an exploration of the nature and dynamics of self-motivation. Students are extrinsically motivated when they are driven by an outside force, such as a prize, or when they complete a unique assignment that is necessary for a particular grade ( Niemiec, C. P., & Ryan, R. M., 2009).

In order to achieve the requirements of the academic qualification required to secure a job within their chosen career, students must do their homework. Conversely, a different student might complete the same task to adhere to his instructor's directions. Rather than any intrinsic delight, the two pupils' actions have been affected by the tool they used—their assignment. The student's choice in the first instance and the desire for outside authority in the second are examples of external causes that caused the prior behaviors. To sum up, those actions show extrinsic incentive, although they vary in terms of relative autonomy. The difficulty lies in inspiring the kids without using rewards or penalties. ( Van Nuland, H. J., et al , 2012).

Grades for attendance or hurdle requirements to do all pre-class tasks in order to pass the course have been observed in practice in order to make the techniques effective. Alternatively, SDT promotes the development of educational settings that motivate learners to incorporate the values related to a particular course into their own. ( Baron, P., & Corbin, L. , 2012).

According to SDT, the most autonomous kind of extrinsic motivation combines regulation with the discovery that the values students apply to their own lives are associated with the subjects they study; as a result, their behaviors are self-sufficient and unaffected by other forces. For instance, a student driven by integrated regulation might engage in class discussion primarily for the purpose of fulfilling their desire for validation, with the discussion's enjoyable aspects serving as a secondary incentive.

Research by Deci, Eghrari, Patrick, and Leone (1994) as well as Williams and Deci (1996) provides empirical evidence for this. By treating students as active participants, the flipped classroom method is likely to meet students' demand for autonomy and, as a result, impact their behavior throughout learning through integrated regulation. Therefore, it seems sense to hypothesise the following.

Proposition 2: The flipped classroom strategy is likely to generate learning environments that meet students' demand for autonomy, which in turn will raise extrinsic motivation levels. The extent to which students' needs for competence are met determines how much integrated regulation influences their learning behaviors (Ryan & Deci, 2000).

Creating learning settings that enable students to be at the center of the learning process is the main goal of the flipped classroom approach. In other words, by actively participating, students are given the chance to take charge of the production and sharing of knowledge. Based on studies conducted in the last ten years, including those by Gauci et al. (2009), Lord, Prince, Stefanou, Stolk, & Chen (2012), Prince (2004), and Thaman, Dhillon, Saggar, Gupta, & Kaur (2013),

When students actively contribute to the creation and sharing of knowledge, as opposed to being passive recipients of knowledge imparted to them by an instructor through traditional lectures, they feel more capable. The flipped classroom approach allows students to integrate values that are advocated within a given course by meeting their desire for competence. That is, rather than being forced by the teacher to use reward or punishment mechanisms, students' learning behaviors are more likely to be extrinsically driven by integrated regulation. Consequently, it makes sense to hypothesize the following: Proposition 3: The flipped classroom strategy is likely to generate learning environments that meet students' desire for competence, which in turn will raise extrinsic motivation levels. 14 Higher education students exhibit learning practices that are endorsed and respected by important people. (e.g., parents, professors, friends, etc.) with whom they have an affinity or would like to have an affinity (Ryan & Deci, 2000). Thus, a key factor in determining how well students integrate the values that a course promotes is how well the learning environment that the course uses meets their need for relatedness (Beachboard, Beachboard, Li, & Adkison, 2011; Niemiec & Ryan, 2009; Ryan, Stiller, & Lynch, 1994). The flipped classroom strategy is likely to create learning settings that allow students to form small learning groups, raising the degree of peer-to-peer relatedness they experience, by promoting active engagement and autonomy. Additionally, smaller classes (and classrooms) might be investigated, as there is no need for a huge lecture hall to transfer content. This would allow for significantly greater contact between the teacher and students, which would improve the students' sense of relatedness to the instructor. Students are more likely to incorporate the values that are taught in a particular course as a result of these enhanced feelings of relatedness to their peers and instructor. Therefore, it makes sense to speculate the following: Proposition 4: The flipped classroom method is likely to provide learning environments that meet students' desire for relatedness, which in turn will raise extrinsic motivation levels. Should flipped classroom

strategies, as we anticipate, increase student motivation, they will complete a significant quantity of work both inside and outside of the classroom.

An Overview of Motivation Learning a second language has long been a topic of fascination, yet different learners acquire various skills at different rates and at different levels of proficiency. Numerous scholars concur that the learner's motivation is a critical factor in second language acquisition, in addition to intelligence and ability. Without taking into account any other individual differences in language acquisition, learners with a stronger motivation are expected to study at a faster rate and be able to reach a higher level of competence than learners with a lesser motivation.

The two categories of motivation that Gardner and Lambert (1972) identified are integrative and instrumental. The desire of language learners to study a language in order to achieve instrumental goals—like finding a job, passing an exam, reading technical material, etc.—is known as instrumental motivation. Conversely, integrative motivation is the desire of language learners to acquire a second language in order to interact with native speakers of the language and experience a new culture.

### **3. Method**

The study's goal is to determine whether implementing the flipped classroom approach may enhance vocabulary learning and boost young students' enthusiasm to learn English. Outlining the advantages and disadvantages of the flipped learning approach is the goal of the research.

The fourth-grade kids at this school, who had never before been taught using flipped methods, served as the sample for the study, which was carried out by selecting a preparatory school in Al-Diwaniyah, Iraq. The forty students were split into two groups of twenty, each, and were taught using flipped teaching methods in one group and the traditional approach in the other. A brief exam was administered at the start of the experiment to gauge student vocabulary yield. A second test was administered to gauge student vocabulary yield following the implementation of the flipped strategies. In order to assess the students' motivation for learning English, surveys were also distributed to both groups of pupils. The students were asked to assess how much they understood about English and how using flipped classrooms had changed their desire to learn the language.

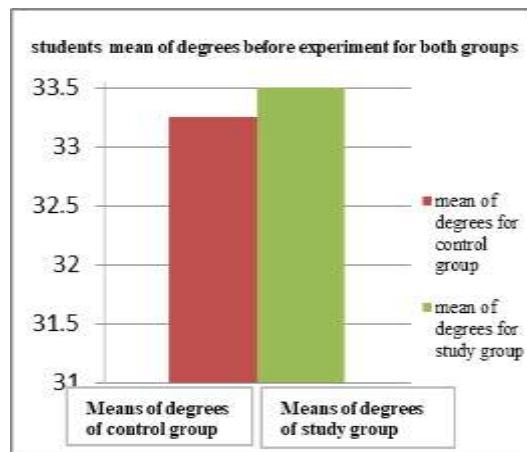
In order to compare the results against the conventional lecture format based methods, the research used the flipped learning method, which involves asking students to acquire and learn

vocabulary through technological means, such as online videos, computer based teaching materials (interactive learning), and leaving the time in the classroom for interaction.

#### 4. Result

The control group's mean score on the test taken prior to the trial was 33.25, with student degrees ranging from 23 to 49. The study group's mean was 33.5, and the control group's standard deviation was 7.859, while the study group's standard deviation was 7.015. These data indicate that there was no statistically significant difference in the vocabulary yield between the two groups' students.

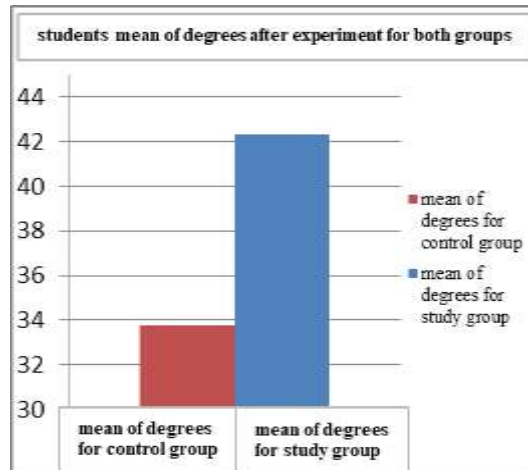
Following the experiment, the study group's mean degree was 42.3 and the control group's mean was 33.75, indicating an increase brought about by the application of flipped learning. The research group's standard deviation was 5.6, whereas the control group's standard deviation was 7.88. Table (2) displayed the means and standard deviations for the two groups. The values' graph was displayed in figures (1) and (2).



**Figure 1:** Students mean of degrees for both groups before the experiment.

|                   | Control Group |                    | Study Group |                    |
|-------------------|---------------|--------------------|-------------|--------------------|
|                   | Mean          | Standard deviation | Mean        | Standard deviation |
| Before experiment | 33.25         | 7.859              | 33.5        | 7.015              |
| After experiment  | 33.75         | 7.788              | 42.3        | 5.6                |

**Table 2:** Mean and standard deviation of students before and after experiments for both groups



**Figure 2:** Students mean of degrees for both groups after the experiment

The survey results indicate that students' motivation to learn English has increased, as evidenced by their positive responses regarding the flipping techniques. Students reported that using these techniques had increased their vocabulary yield and improved their understanding of comprehensions, which in turn had improved their interaction with teachers and boosted their motivation to learn English and achieve high grades.

## Discussion

According to earlier findings, there was no statistically significant difference in the mean degrees and standard deviation between the control and study groups, demonstrating that students who get instruction using conventional methods had similar vocabulary yields.

Because the students in the control group were still receiving instruction using traditional methods, the standard deviation and mean of their degrees hardly changed.

The study group's mean degree was found to have significantly increased as a result of the students' learning with flipped techniques. This finding indicates that flipped learning will increase students' motivation to learn English, which will lead to higher degrees and more vocabulary.

## Conclusion

The effectiveness of flipped teaching methods has been demonstrated in raising students' motivation to learn English and expanding their vocabulary.

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### Author Information

Ahmed Najm Abed ( Ministry of Education )  
[Ahmednajim305@gmail.com](mailto:Ahmednajim305@gmail.com)

Taif Abdulhuseib Dakhil ( Imam Ja'afar Al-  
Sadiq university , Almathana branch )  
[Taif55181@gmail.com](mailto:Taif55181@gmail.com)

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