

# The Effect of Using the Flipped Learning Strategy on Developing Primary Stage Fourth Graders' English Comprehension Skills in Kuwait

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## **Abstract**

This paper focuses on investigating the flipped learning strategy's effect on developing reading comprehension skills in English among 4th-grade primary pupils in the Kuwaiti capital schools. To achieve the study's objective, the researcher redesigned 9 reading comprehension lessons from the 4th grade EFL textbook. The researcher used the quasi-experimental approach with an experimental and a control group to measure the effect of the flipped learning strategy on pupils' achievement in English reading comprehension. To calculate the effect, a post-achievement test was used, and the study sample was intentionally selected. This is consisted of 50 male and female pupils from the basic stage. The data were analyzed statistically, and the results revealed statistically significant differences in favor of the experimental group. Based on the obtained results, the researcher recommended applying the flipped learning strategy in teaching English and related subjects in primary schools in Kuwait and holding training courses for English language teachers to design lessons that align with flipped learning. Further research can address the effect of AI tools in improving reading comprehension.

**Keywords:** Flipped learning, reading comprehension, learning strategy, reading skills

## **Introduction**

### **1.1 A general overview**

Reading comprehension is considered one of the four foundational skills of language learning which has received special attention in EFL instruction in the state of Kuwait and the world. Various strategies have been proposed to teach this important skill effectively. Recently, educators have thought of employing educational technology to teach languages. One suggested strategy is flipped learning, which is an educational strategy that may help attract the students' attention and get them out of the conventional and ordinary environment, making the learner feel satisfied and active in the language learning process. According to scientific and technological scholars in the educational field, this strategy falls within the newly emerging e-learning strategies paradigm. It is one of the new concepts in education, which is in the process of formation with its basic idea based on the exchange of scientific knowledge. In other words, what is being done at school can be done at home where classroom learning is specified for discussion and deepening learning. So the employment of the new technology has become an integrative and hands-on process that allows the student to achieve so much in the educational process. Also, it allows the student's parents and family members to participate in and help in the instructional process. Flipped learning is defined as:

a method that allows increasing the process of effective interaction between teachers and students while also creating an educational environment that motivates students and teachers to take responsibility for their learning (Al Far, 2015, p. 220).

Teachers use this strategy to achieve several functions, including assisting students in overcoming the challenges that may impede achieving excellence and creativity. The flipped learning strategy is one of the active learning methods that support the learner's personality, by enabling them to be independent to acquire skills on their own through various technological media, especially audio-visual ones. The strategy also helps to extend the concept outside the school environment in collaboration with peers, which can be achieved by employing the skill of linking what is learned in school with the learner's personal life due to the academic services it provides (Al-Kahili, 2014).

Hawks (2014, p.264–269) described flipped learning as:

an academic model that makes use of current technology and the Internet in a way that lets the teacher put together the lesson through movies, audio documents, or various media, to be presented to the students anywhere they are at homes or schools, and the students can use their computers, smartphones, or tablets even before attending the lesson.

This illuminates the significance of this kind of learning and the benefits learners may obtain by applying this model to English language learning.

Consequently, this learning style is based on preparing the video to be shown at any time, while the class time is dedicated to debates, discussions, exercises, and activities. The teacher can prepare a video which lasts for 5 to 10 minutes and, meanwhile, share it with learners using certain websites and social networks. Dunker defined this type of instruction as "an educational approach in which technology is combined with face-to-face teaching in regular classrooms by watching or listening to one of the lessons on the Internet and then participating in the implementation of individual and group activities in the classroom with the teacher and his students, which helps in the assimilation of the concepts, information, and thinking skills in the lesson" (Dunker, 2015, p.171-186).

According to Lipson and Wixon (2009), the development of reading comprehension has two main arrangements: reading for the achievement of understanding, which connects with the skills of the reader to justify, and reading the text by completing the existing information, formulating hypotheses, and then testing them out. However, this is for the purpose of comprehension such as building the integrated structure of information existing in the text.

Reading comprehension may be described as a complicated skill because it consists of more than one range that depends on symbols and their pronunciation. The reader needs to recognize that correct reading comprehension requires the availability of situations, along with identifying the meanings in the text and linking words and sentences. As a result, the reader merges them with a series of interrelated ideas to convey the message that the writer intends to convey. This does not happen unless the reader selects the meanings accurately, and follows the writer's ideas (Bani Yassin, 2008).

Several scholars perceive the current reading comprehension process as a difficult skill that requires deriving meanings and higher thinking skills encompassing evaluation, criticism, selection, as well as organization. The different reading levels embody the student's ability to grasp what they read in different educational materials. Reading comprehension is represented through stages of comprehension that include various intellectual competencies, which might be represented by practical knowledge within the textual material and various expressions depending on the general context of the reading material (Hassan & Al-Haddad, 2013).

## **1.2 Theoretical framework**

### **▪ Flipped Learning strategy**

To effectively teach reading comprehension as a major English language skill, the present study examines the flipped learning strategy's probable effect on EFL learners' development of this skill. In recent years, technological developments have introduced significant adjustments in the teaching field, in

which blended learning procedure is becoming a growing fashion due to its prominent advantages. According to Shin (2011), blended learning that combines online and face-to-face instruction can create a successful teaching and learning experience. It proves that the flipped learning model can create a great amount of educational value such as developing class preparation, classroom interaction, and academic accomplishment.

### **1.3 Defining Flipped Learning Strategy**

Aronson and Afrstrom (2013, p.1) defined flipped learning as getting ready for a lesson in addition to preparing a video by the teacher which is watched outside academic hours, and it is also exploited for paintings and enforcing lab reviews. Also, they define it as an academic model that displays the realistic educational method wherein a video is watched as a model lesson at home and carrying out the associated activities at school.

The roots of flipped learning went back to 2006 and were presented by two Chemistry teachers (Jonathen Bermman and Arson Sam) in Colorado in the USA. They are referred to as the pioneers of flipped learning. It all began when they started to become concerned about students' absence from lectures. As a result, they used video records for lectures on YouTube to help students easily have access to the educational material.

Brame (2013), cited in Tran's (2017), proposed four design principles for a flipped classroom including providing an opportunity for students to prepare for class, providing a mechanism to assess student understanding, and providing in-class activities that focus on higher-level cognitive activities.

A flipped mastery learning strategy saves class time for teachers and allows students to learn about learning alternatives for students. With this learning model, teachers can give this instruction by recording and reporting screencasts of the work they can do using their computers, developing videos for their teaching, or creating video lessons from reliable Internet sites. Students need to watch such videos before entering the classroom to participate actively in classroom activities. The videos embrace a "bring the world to the classroom" approach and, for this reason, they become more engaging, attractive, and motivating to the classroom students (Hamden & McKnight, 2013, p.107).

The use of flipped learning has been prominent to be a green and useful strategy for schooling to replace the conventional direct guidance by expressing written presentations, video lectures, and providing online reading texts as well as assignments outside the class time. Thus, this allows for more class time to be exploited for active learning.

Active learning may include activities and discussions in which teachers produce its content, and inquiry is mainly based on studying. Flipped learning has been compared to online learning, but there are obvious differences. Online education, for example, occurs remotely, and the teacher and student never

interact face-to-face. Virtual class meetings, assignments, and lectures may happen online through a course management website usually conducted asynchronously.

Sometimes the instruction and the related tasks are enhanced by utilizing group chats or another method of enabling collaboration and peer guidance. Mixed instruction also occurs in class time alongside direct pupil-instructor interaction. The flipped learning model bridges a learner-centered classroom environment by enabling the in-depth learning that educators seek (Bergmann & Sam, 2012).

In reality, "flipped learning" tackles the students' benefit, in the first place, publicity to the new stuff of learning sophistication, normally throughout the reading process or lecture movies. Thereafter, it allocates a specific time to do the problem-solving conversation or debates which are assigned to develop the lower levels of cognitive learning to attain knowledge and comprehension from outside the class. It also, at the same time, focuses on the higher levels of cognitive instruction including application, analysis, synthesis, and finally evaluation in class. Here, they receive support from peers and instructors. Hamden and McKnight (2013) mentioned four key features of flipped learning: flipped learning requires flexible environments, needs a shift in knowledge of culture, desires intentional content, and needs expert educators.

For a class to be considered "flipped", it should contain four basic pillars: (1) a flexible setting in which students select when and where learning should take place; (2) a learning culture in which the student-centered model is used; (3) intentional material used by educators to increase classroom time to use methods of the sort of student-centered, active learning strategies, relying on the learner's level and subject; (4) an educator who takes on less prominent roles in the flipped classroom and remains as the necessary element that enables flipped learning to occur.

In the Flipped Learning classroom, instructors change the direct acquisition of knowledge out of the learning institution and cause it to flow into the learner's mastering area. This is with the assistance of one of the various technologies. Teachers can make files and narrate screencasts about their work on their laptops, produce movies of the instruction while teaching, or generate video lessons from Internet sites. Many educators started flipping their classrooms by using the available materials. Videos or screencasts should be made available so that students can have access to them at a convenient time at home, during study halls, in the hospital, or probably on the bus to assist the students in attending class well-prepared (Musallam, 2011).

#### 1.4 Theories and Concepts related to the Flipped Learning Strategy

It is worth pointing out that flipped learning is based on learning theories. The most significant of these include the following according to Abdel-Wahhab (2016, p.19-20):

- **Constructivist Theory:** This learning system presents facts because the teacher constructs previous information through his previous reviews, develops new expertise, and hyperlinks it to the current learner's know-how. They are to be developed via learners' discussions in the school room or through electronic communication.
- **Dialogue Theory:** This depends on the discussion between novices and the instructor. The dialogue will increase the effectiveness of education and maintain its impact. Dialogue has a position within the framework of education and the direction of the educational process. The discussion after the instructional content's presentation deepens educational content and enriches the educational process.
- **Expansive Theory in Education:** This theory is an extension of the cognitive-perceptual concept, which concerns cognitive systems to improve the learner's reviews and link them in a transferable and retrieval manner when wanted. This concept is a practical software of the opposite traditional approach of gaining knowledge, as education begins with the learner's view of the educational material and then the teaching procedures through discussion that focus on the main concepts.
- **Social Presence Theory:** This theory is based on both verbal exchange and social psychology, as it measures the social learning of verbal exchange through the Internet, which is consistent with the nature of the learning style. The Flipped Learning Strategy, which is based on the learners' effort to study through the online educational site and then discussing what has been studied in the traditional classroom, indicates effective interaction between the learners.

#### 1.5. Pillars of flipped learning strategy

Flipped Learning rests on four main pillars: Flexible Environment, Learning Culture, Intentional Content, and Professional Educator.

- **Flexible Environment:** This is the main pillar to Flipped Learning. "Flipped classrooms allow a variety of learning procedures. Educators regularly rearrange their gained knowledge of space to hold the lesson or unit, which may involve organization work, unbiased studies, performance, and assessment" (Hamden & McKnight, 2013, p.17). Having a flexible environment, the students don't feel tense and nervous, rather than the need to hurry to get details in a lecture based on the flexibility method. However, the learner feels free to receive help from their peers or consult the teacher at the time they want. In the same way,

by eliminating the burden of "teaching" pushed by time, the teachers may enjoy the freedom to have extra time for additional activities of authentic practice. Educators who flip their classes are described as flexible in their assessments of the student's learning (Bergmann & Sams, 2012).

- **Learning Culture:** Changing from an instructor-based model to a student-based one, the mastering tradition is changed from its bases. Flipped learning firmly changes instruction to a learner-centered type of instruction, whereas class time is given to exploring subjects in greater depth and using rich learning opportunities. As a result, students are actively involved in the construction of knowledge as they take part in the class and evaluate their learning in a personally constructive way (Aronson, & Arfstorm, 2013).
- **Intentional Content:** The instructor decides on the content to be taught without delay and what is to be explored by the learners. Here, "Educators use intentional content to maximize classroom time to adopt various methods of instruction such as active learning strategies, peer instruction, problem-based learning, or mastery, or Socratic methods, depending on grade level and subject matter" (Peter, Khoo, Scott, & Round, 2016, p.7). Deciding on the content and planning for the learning process, the classroom time is maximized, and much time is left for other strategies and interaction. This provides more classroom time. Flipped learning educators continually consider how they can use flipped learning to enable students to increase conceptual expertise, in addition to procedural fluency. Educators use the intentional content to enhance lecture instructional time on the way to undertake student-centered and active achievement techniques, thereby relying on grade stage to be counted (Aronson, & Arfstorm, 2013).
- **Professional Educator:** The role of a professional educator is important. During class time, they constantly observe their students, giving them feedback relevant to the material, and evaluating their learning outcome. Professional educators are reflective in their respective work, care about improving their instruction, welcome constructive criticism, and stand controlled turmoil at their classrooms. While professional educators take on less important roles in flipped learning, they remain the essential partners enabling flipped learning (Aronson & Arfstorm, 2013).

The flipped learning strategy addresses the desires of both high-achieving and struggling learners. Flipped learning allows advanced students to learn autonomously while struggling students do not give up on homework or class learning (Talbert, 2012).



### **1.6. Advantahas of using the flipping learning strategy**

Traditional techniques consider the students as passive elements to be taught and the students feel so. They sense worthless and they suppose they should obey what the teacher requires them to do. In contrast to traditional methods, flipped learning considers the learner to be the core of the instructional process. Based on this view, students feel responsible for their learning -fostering independent learning and learner engagement- and so they become independent learners. In this way, "learning" becomes the goal in flipped learning, not the "teaching" process. Flipped learning turns traditional classes upside down due to the use of technology. At home, the students watch the videos alone at varying speeds as they like, and it does not matter how many times students watch. The idea is to get the gist. They decide for themselves. Independent learning is promoted following this type of instruction. "Students are not confronted with spontaneous questions during the interaction with the video. Nonetheless, it is interesting to notice that engaging with the video will lead to the maximum retention of information and will inspire high-level thinking skills" (Nicolosi, 2012, p.13-18).

The flipped paradigm contains several potential benefits, extra one-on-one time with students, possibilities for active and collaborative mastering, neglected lectures, self-paced studying, and 'simply-in-time' type coaching. Indeed, flipped studying can be taken into consideration as a supplement, rather than a substitute to the traditional mode of instruction. Thus, it has been reported that flipped learning significantly enhances the academic achievement of school students (Hamden & McKnight, 2000; Ay & Dağhan, 2023; Aybirdi, Efe & Atasoy Sal, 2023).

Chen and Line (2012) indicated that using videos of instructional material in the class leads to an increase of 4 percentage points. Flores and Savage (2007) show that not only does the use of recorded lecture material aid in student performance, but students are also willing to pay more for a class that makes use of recorded lectures. Scholars in flipped learning (Bergmann Sams, 2012, p.12) noted that flipped learning does not look like 'a synonym for online videos. When most people hear about the flipped class, all they think about are the videos. It is the interaction and the meaningful learning activities that occur during face-to-face time that is most important'.

The advantages that could emerge from lively and collaborative learning are nicely documented in the education literature, and consequently will only be mentioned in brief. Including carefully constructed collaborative studying inside the classroom can appeal to many students and probably help too. Empirical research on active and collaborative learning has revealed that students who were taught using collaborative learning techniques performed better (Maxwell et al., 2005, p.51). Despite the many reasons to incorporate active and collaborative learning, a median of 30% of class time is devoted to classroom activities and discussions (Goffe & Kauper, 2013).



### **1.7. Reading comprehension**

Reading comprehension is a mental skill that aims at obtaining and acquiring the skill, and it is a complex system of several sub-processes that the reader performs to elicit. This means that the reader interprets the examined fabric based totally on his expertise. It depends on mental perception rather than on sensory perception, and so it requires focus, attention, analysis, reproduction, linkage, criticism, and judgment. Reading comprehension includes three main additives: the reader, the text, and the learning objective. Reading comprehension relies upon many language abilities, which include low-level lexical skills along with talent in word reading sentence-level skills such as knowing grammatical structures and higher-level text-processing skills such as observing comprehension. In addition, effective low-level lexical skills facilitate reading comprehension by directing more resources to higher-level processes (Suman, Abdelhak, 2019, p.234). Pupils improve their level of knowledge and advance the educational process toward achieving its goals because it involves mental awareness that requires focus and attention (Al Shalaby, 2013, p.343).

The importance of reading comprehension becomes clear as it helps the learner develop his/her linguistic competence with its literal and figurative meanings. This is because the learner, without this linguistic wealth, cannot comprehend what he/she reads and, consequently, cannot specify details, remember facts, and identify the main idea. Organizing the text, according to its substantive/temporal sequence, the learner also cannot master executing instructions, deriving conclusions, analyzing roles, forecasting events, solving learning problems, working on judgment, and finally criticizing what they read (Awad, 2003).

Furthermore, by looking at the various studies related to reading comprehension, such as those by Al-Alwan and Al-Tal (2010) and Ahmed (2011), one can find that there are many opinions about the factors affecting the reading comprehension process. Nonetheless, it can be argued that the factors affecting reading comprehension lie in the following:

### **1.8. Statement of the study's problem**

The problem of the study has to do with the general complaint that students' reading comprehension needs to be improved. The study probes the effect of the flipped learning strategy on the development of reading comprehension skills in English among the 4th grade primary students in Kuwait.

This study aligns with the study of Al Ma'ani (2008) and Al Raies (2007), which indicate the negativity that dominates the students in approaching reading texts and also weakens their interaction with what they read. As a

result, they do not comprehend the text as expected, and they restrict themselves to shallow analysis.

The weak reading comprehension and comprehension talents in the English language amongst the 4<sup>th</sup> grade primary students in Kuwait indicates the existence of shortcomings related to coaching studying. The study by Al-Ghamdi (2011) indicates the weak level of learners' reading skills in the English language at various educational levels, which resulted in a weakness in the level of female students in creative reading skills. This indicates the scale of the challenges and difficulties among those engaged in the instructional process of teaching English, considering that reading is the first provider of information, experiences and knowledge, a means of communication between societies, and an effective tool in achieving intellectual development. As the results of the study of Marlowe (2012) and Al-Zahrani (2014) revealed, there is the need to adopt a modern strategy through which it is possible to develop creative reading skills among primary school students.

The basic principles of learning English for the primary stage are perceived as having a potential influence on reading difficulties and achieving the objectives set for that age stage, which has a special impact on the levels of logical thinking in the future (Al-Ghamdi, 2011). This is based on what was confirmed by the study of Al-Zboun (2020) on the effectiveness of the strategy of flipped education in arousing motivation, enhancing thinking abilities, and facing routine and comprehension difficulties. The problem of the study was addressed through the following main research question: what is the effect of using the flipped learning strategy on developing reading skills among the 4<sup>th</sup> primary grade students in the Kuwaiti capital governorate?

### **1.9 Objectives of the study**

This study seeks to probe the effect of the flipped learning strategy in developing reading comprehension subskills within the English language for the 4<sup>th</sup> primary grade students in the Kuwaiti capital governorate. It has the following sub-objective:

- Illustrating the effect of using the flipped learning strategy in developing reading comprehension skills in the English language among the 4<sup>th</sup> primary grade students in the Kuwaiti capital governorate.

### **1.10 Importance of the study**

**For Students:** Developing reading comprehension in the English language for the 4<sup>th</sup> primary students and developing the participatory technique using classroom activities.

**For Teachers:** Developing their teaching methods through modern methods such as the flipped learning method, which depends mainly on

technological improvements and techniques of teaching, reading, and comprehension.

**For Researchers:** The study will contribute scientifically to developing the strategy of flipped learning and reading comprehension in the English language.

### **Definition of terms**

**Flipped Learning Strategy:** It is a strategy that concentrates on the learner. Al-Zain (2015, p.177) defines it as: "A strategy based totally on focusing across the pupils as opposed to the instructor, in which the pupil watches instructions through video in his home before attending the educational lessons, which allows the teacher to use the class time to activate and direct the student depending on what he knows".

**It is procedurally defined as** an interactive getting-to-know surroundings which are created via giving the student computerized academic material in the form of shows as learning equipment. Here, the learners watch the instructions at their homes before class time, while the teacher uses the class time to provide an active interactive environment in which the student is directed to apply what they learned at home.

**Reading Comprehension:** "We know that the student's abilities to recognize the ideas contained in reading the text and interpret them at varying levels (infer thoughts, interact with it, after that they will be able to answer the text-based questions) depends on the learner's cognitive heritage and their potential to research, shape, and evaluate" (Abdul Haq & Souman, 2016, p.231). This is procedurally defined as the student's ability to comprehend in line with the reading comprehension skills adopted in this study, and it is measured by the degree achieved by students in the reading comprehension test prepared for this purpose (Madden, 2011, p.911).

### **1.11 Study limitations and delimitations**

The limitations of the study are as follows:

**Spatial and Temporal Limitations:** This study is limited to 4<sup>th</sup> primary-grade students in the first semester, 2020-2021.

**Object Limitation:** The study is limited to the sixth unit in the English language textbook for 4th primary-grade students.

**Delimitations of the Study:** The generalization of the study results is determined by the nature of the test and its psychometric properties of validity and reliability.

## **2.1 Relevant literature**

Among the studies related to the subject of this study, the following are included:

## **2.2 Literatyre related to reading comprehension**

A set of related studies have investigated different reading comprehension aspects and skills.

Tolba (2021) studied the effectiveness of a program that was based on the situational learning of enhancing and developing reading comprehension skills and pragmatic language among elementary students with reading difficulties. The research aims to identify and recognize the effectiveness of that program. The experimental group included 30 fourth- grade students who suffered from reading difficulties. The research materials and tools included a list of reading comprehension skills, and a list of pragmatic language aspects and dimensions. Also, the program was based on situational learning including the teacher's guide, the student's book, and the following measure tools like reading comprehension test and pragmatic observation criterion. The experimental strategy was used and applied to selecting the research group and the program, using the semi-experimental group through the pre and post-test. The program has been applied on the research group students while using appropriate tools to measure them before and after. The results showed improvement in reading comprehension and pragmatic language skills for the students.

Mansour and Al-Talafeh (2020) studied the impact of the use of the listening triangle strategy in the development of student's comprehensive reading skills among third-grade students. The study aimed to explore the effect of using the listening triangle strategy in developing comprehensive reading skills among 3rd-grade students. The study used the experimental method together with a semi-experimental design. Therefore, a sample from the third primary class students consisting of 60 male and female students was chosen randomly and divided into two study groups. An experimental group that consisted of 30 students was taught by using the listening triangle strategy, while a control group consisting of 30 male and female students was taught by using the traditional method. The results of the study indicated significant differences between the experimental group and the control group in the post-test of the reading comprehension test levels embodying the literal, deductive, and critical ones in favor of the experimental group students.

Al-Amayra (2020) studied the efficiency of using the hot seating strategy in teaching reading texts to improve reading comprehension and critical thinking skills among 6th-grade students in Jordan. The study was conducted on 51 fourth-year university students in the Amman governorate, divided into two groups: the experimental group which included 25 students, and a control group which consisted of 26 students. The study used a quasi-experiment design to attain the purposes of the study. A test consisting of 24 items was applied to measure reading comprehension among the study participants. Watson-Glaser test was used to measure their critical thinking skills. The study revealed a significant

impact of teaching using the hot seat strategy to develop reading comprehension and critical thinking skills in favor of the treatment group.

Ebnian (2019) investigated the effects of the flipped learning strategy on the development of university students' reading comprehension in EFL while examining the students' attitudes toward the target strategy. The study also sought to reveal students' attitudes toward using the flipped learning strategy. The sample of the study comprised 72 students who were enrolled in the 101 English Communication Skills course at the World Islamic Sciences and Education University in Amman. The students were assigned to two groups, experimental and control groups. The instruments used included a pre-post reading comprehension test and a scale for measuring students' attitudes towards the flipped learning strategy. The results of the study showed that the flipped classroom strategy had a positive effect on developing university students' reading comprehension in EFL. The results pointed a statistical difference between the (control and experimental) groups in the post-reading comprehension test in favor of the experimental group. Furthermore, the study's results revealed that students from the experimental group demonstrated positive attitudes toward the target strategy.

Al Mashaqbeh (2019) studied the effectiveness of the teaching of English by computerized survey and computer-assisted learning in the development of reading comprehension skills and elevated thinking among 10th-grade students. The study intended to explore the effectiveness of teaching English through the computer-guided survey and the development of reading comprehension skills and the elevated thinking skills of 10th- grade students. The study sample included (105) 10th-grade students from the Martyr Ahmed Al-Ziyud Secondary School for Boys belonging to the directorate in Zarqa in Jordan. The results of the study indicated a statistically significant difference between the reading comprehension skills in English, because of the teaching strategy in enhancing the directed survey. There were also statistically significant differences between reading comprehension skills due to the teaching strategy in boosting the computerized survey. The results also showed significant differences between thinking skills due to the targeted teaching strategy.

Al Enezy (2019) studied the effect of a concept mapping strategy on developing creative reading skills in English among first-grade secondary school students in Tabuk. This study inquired about the effect of teaching English by using the concept maps strategy in enhancing creative reading skills among Tabuk first grade secondary students. To achieve this aim, the study used a quasi-experimental design and randomly assigned two groups of first-grade secondary students at Aben Al-Ameed School in Tabuk. The results show that there were statistically significant differences ( $\alpha = 0.05$ ) between the experimental and control group students in their creative reading skills regarding fluency, originality, and

flexibility for the experimental group students. The effect on fluency and flexibility was high, while the effect was average on the original reading skills.

Al Gatawneh (2007) examined the effect of using the Reciprocal Teaching model on enhancing the reading comprehension skills of Jordanian secondary school students. The study participants comprised 88 1st secondary grade male students in 2005/2006. The school was purposefully selected on convenient grounds. The two first secondary grade students' sections in the school were assigned to the levels of treatment by draw. The results of the study revealed a statistically significant difference at the significance level  $\alpha = 0.05$  between the two groups in the entire reading comprehension test and in each domain of the test to the benefit of the experimental group. The study concluded that more research is needed to provide additional knowledge concerning the replication of the experiment at other different levels of learners.

### **2.3 Literatyure related to flipped learning**

Irsheed (2022) probed the effect of the use of the flipped learning method in teaching English to develop reading comprehension among 10<sup>th</sup> female students in Atorah female secondary school in Alramtha government. The study used the quasi-experimental method with a sample consisting of 40 female students, and they were distributed equally into two groups, a control group which included 20 students and an experimental group of 20 students. However, the experimental group studied the reading texts by using Flipped classroom. The control group studied them via the usual way of teaching. The researcher developed a test to assess the levels of reading comprehension skills (literal, deductive, critical, and creative) in the two study groups. After applying the pre-post reading comprehension skills test to the two study groups, the results revealed that there were statistically significant differences ( $\alpha = 0.05$ ) between the two study groups on the reading comprehension test and on all skills domains in favor of the experimental group students who studied by using the flipped classroom method. The results also pointed out that the flipped classroom strategy has a clear impact on the survival of the effect of previous learning, and its transfer to the classroom. This is because this strategy focuses on the student's self-learning, and it makes it the core of their education. This contributed to the development of the reading comprehension skills of students in the experimental group. The study recommended the importance of using the flipped classroom strategy in teaching English language skills and in the various other education media.

Effendi (2020) implemented a study that aimed to identify the effects of the use of the flipped learning strategy in the improvement of students' grades in writing a descriptive text in English. It consisted of 38 students and of 38 Eighth-grade students. The results of the study demonstrated considerable differences in the students' achievements between the experimental group which received



learning using the flipped learning strategy and the control group which received learning via the traditional way. The differences were, however, in favor of the study group, which received learning using flipped learning.

Al Rewely (2019) studied the impact of using flipped classroom strategy in learning creative English reading skills among 3rd-grade intermediate school female students. To achieve the purpose of this study, the researcher employed a semi-experimental design. The sample encompassed 67 Third-grade students who were split up into an experimental group (32 students) as well as a control group (35 students). The study uncovered significant differences in developing creative reading skills between the pre and post-tests with a total average of 13.44, compared to the control group with an average of 11.51.

Sherida (2019) conducted a quasi-experimental study that aimed to identify the influence of the flipped learning strategy in teaching critical reading skills among 10th- grade students. The results showed that there were significant differences in the mean scores of study participants in favor of the experimental group students and in comparison with the control as well as mixed groups. Furthermore, the study indicated that there were substantial differences between the mixed group and the control group favoring the mixed group. Also, these differences are ascribed to the use of the flipped learning strategy in the teaching of English.

Attia (2019) studied the effect of the flipped classroom method on reading instruction, reading comprehension, and phonological awareness among non-native Arabic speakers who are learning the language. This research study aimed to identify the usefulness of that. The sample consisted of 64 students who were at the first level in an Arabic Language Learning Institute. They were subdivided into the experimental group (32 students) and the control group (32 students). The researcher prepared the educational materials and evaluation tools. The educational materials for teaching reading were obtained through the flipped classroom approach, a special reading comprehension test, and a phonological awareness test. The validity and reliability of such tools were verified. The findings revealed that there is a significant difference between the experimental group and the control group in the post application pertaining to the reading comprehension test and the phonological awareness test for the benefit of the experimental group.

Al Nashwany (2016) studied the influence of the flipped learning strategy on teaching Arabic language instruction and developing reading comprehension skills and its effect on the education of sixth-grade pupils in Riyadh. This study aimed to assess the reading comprehension skills among sixth-grade Riyadh pupils and their knowledge, and the effectiveness of the flipped learning strategy in their education. The sample was comprised of 50 students, who were split into two groups: experimental group (25) and control group (25). The researcher used the descriptive approach to prepare the theoretical framework of the study.

Therefore, the study indicated that there were significant differences in favor of the experimental group. This confirms the effect of the flipped learning strategy in improving the educative experience.

### Methods and procedures

This chapter describes the research approach used in the execution of the experiment in pursuit of attaining its goals and answering its questions. Also, this chapter introduces the population and the tools that were used to collect the data of this study.

#### 3.1 Research design

To assess the effectiveness of using the flipped learning approach in developing reading and English language skills among 4th-grade students in the Kuwaiti capital governorate, the researcher used the quasi-experimental approach based on a test to either accept the proposed hypothesis or reject it via experimentation. To help us gain knowledge of the proposed unit of the English language curriculum and calculate the impact, a pre-posttest was used with the two groups to ensure that the two groups are identical to achieve the purpose of the study.

#### 3.2 Participants of the study

The study participants included fifty (50) 4th-grade students in Abdul Mohsen Al-Badr Primary School for Boys in Kuwait in the 2021-2022 academic year.

Table 1. Distribution of the Sample

Group	Schools
Experimental	25
control	25

The sample was an intentional one taken from 4<sup>th</sup> grade sections and randomly distributed to two groups as shown in the table above.

#### 3.3 Study instrument

To achieve the goal of this research study, the researcher developed a multiple-choice test with two essay questions designed in the light of Bloom's taxonomy. The study was designed to offer the extent of information, know-how, software, analysis, and evaluation. Relying on related literature along with Al-Mashaqbeh's study (2019), Al Enezy's study (2019) and Al Gatawneh's study (2007), the use of the flipped learning method was implemented to expand students' reading comprehension capabilities in the English language in the 4th primary grade at Abdul Mohsen Al-Bader Primary School in Kuwait. The researcher provided the teacher who taught the experimental group with an

explanation about flipped learning and redesigned 9 reading comprehension lessons from the 4th-grade textbook of the English language according to the related literature on principles and procedures of flipped learning to allow flipped learning to take place. Students were assigned reading comprehension tasks at home. At school, discussions on what they read at home were undertaken to deepen their reading comprehension and enhance their reading skills. The control group followed the conventional method of reading comprehension instruction used at the school.

### **3.4 Reading comprehension test**

The researcher developed the reading comprehension test. The test consisted of a set of questions. The questions rank the students' related reading comprehension skills in the English language. The reading comprehension test was related to the topic titled 'Sabah Al-Ahmad Natural Reserve' which includes 9 reading comprehension questions, of which 7 multiple-choice questions and 2 open short-answer questions. All were related to the reading comprehension text. Each question is given 2 marks.

### **3.5 Validity**

To affirm the test validity, it was forwarded to specialists and professionals in English language curricula and related teaching methods and English language supervisors. They were asked to specify their opinion on the test regarding the link between the test items and the content they represent. They all considered the test appropriate with a few modifications regarding the formulation of two items and a few language issues considered in the final copy of the test.

### **3.6 Cronbach's alpha reliability coefficient RO**

After completing the modification of the test in its final form, it was given to an exploratory sample which included 4th primary grade students from outside the study sample. In the test, the researcher considered the individual differences among the students. The value of Cronbach's Alpha coefficient for all test items reached 0.704, indicating an appropriate degree of reliability. Slight modifications were made to ensure the appropriateness of the final version of the test.

### **3.7 Test implementation**

After making the final changes and modifications on the test items, the researcher applied the test to a group of 4th-primary students, numbering 25 primary students, and re-tested them after two weeks to ensure consistency after deleting one item.

### 3.8 Instrument reliability

The Pearson correlation coefficient was extracted among the full scores of students' performance at the pre and post-applications, and the value of the Pearson correlation coefficient was 0.850. Thus, this shows the steadiness of the correlation.

### 3.9 Study variables

**Independent Variable:** Flipped Learning Strategy.

**Dependent Variables:** Developing reading comprehension skills in English.

### 3.10 Study design

The design of the study is presented in the table below.

**Table 2.** Design of the study

EG	O1	X	O2
CG	O1	-	O2

### 3.11 Statistical analysis

The researcher used the following procedures:

- Applying ANCOVA analysis and calculating t-test, significance level, and effect size.
- The Pearson Correlation Coefficient.
- Test-retest method to measure the stability of the two study tools.
- The achievement test items' difficulty and discrimination coefficients.
- Univariate Analysis: This analysis aims to reduce the error of variance.

## 4. Study results

This study aimed to investigate the effect of the flipped learning strategy in developing reading among 4th-primary grade students in the Kuwaiti capital governorate.

Means and standard deviations were extracted, and an analysis of variance was performed to test the impact of using the flipped learning strategy on developing reading comprehension skills in English among 4<sup>th</sup> grade primary students in the Kuwaiti capital governorate.

**Table 3.** Means and standard deviations of achievement in the pre-post-test for the experimental and control group

Group	Number	Pre test		Post test	
		Mean	Standard deviation	Mean	Standard deviation
Experimental group	25	4.60	1.61	6.44	1.16
Control group	25	4.68	1.80	4.84	1.70
Total	50	4.64	1.69	5.64	1.65

The mean of the achievement of the experimental group in the post-application was 6.44, and a standard deviation of 1.16, while the mean of the control group was 4.84, with a standard deviation of 1.70. As for the pre-application of achievement, it was 4.60 for the experimental group, with a standard deviation of 1.61, and the control group 4.68, with a standard deviation of 1.80.

It is obvious from the above table that there are clear differences in the average achievement regarding the experimental group on the post-application. To test the implication of the differences between the means for the post-achievement of the two groups (experimental and control), the analysis of covariance (ANCOVA) was applied. Table 4 shows the results.

**Table 4.** ANCOVA results concerning the effect of using the flipped learning strategy on developing English reading comprehension skills among fourth-grade students in the Kuwait city

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Pretest	55.688	1	55.688	57.107	0.000*	0.55
Group	34.035	1	34.035	34.902	0.000*	0.43
Error	45.832	47	0.975			
Corrected Total	133.520	49				

\* Differences are statistically significant at the level ( $\alpha \geq 0.05$ ).

The results of the covariance analysis after eliminating the differences in pre- achievement indicate that there is a statistically significant influence at the level of significance ( $\alpha \geq 0.05$ ) for using the flipped learning strategy in the development of reading comprehension skills in English among fourth-grade students. Here F value reached 34.902 and its statistical significance is less than 0.05. By reference to the arithmetic averages, the results in the table above reveal that they are in favor of the experimental group members. There is a high effect for the use of the flipped learning strategy in developing reading comprehension skills in the English language subject for fourth-grade students along with the Partial Eta Squared which reached 0.43. Through the researcher’s contact with the participants of the study, the pupils expressed their admiration for using the flipped learning approach in their reading comprehension.

**Table 5.** Adjusted Means for achievement on the post-test by group

Group	Number	post test	
		Mean	Std. Error
Experimental group	25	6.47	0.20
Control group	25	4.82	0.20
Total	50	5.64	1.40

Among the arithmetic averages shown in Table 5, it is noticed that the arithmetic average of the achievement of the experimental group was 6.47, while the standard error was 0.20. The arithmetic mean of the control group was 4.82, whereas the standard deviation was 0.20.

Based on the foregoing results, it is concluded that there is a benefit in using the flipped learning strategy in developing reading skills in the English language for fourth-grade primary students in Kuwait.

## 5. Discussion, conclusion and recommendations

This study answered the following research question: What is the effect of using the flipped learning strategy on developing reading and language skills for 4th-grade primary students in the Kuwait Capital Governorate?

The results obtained by the analysis of covariance, which were presented above, after excluding the differences in the pre achievement reveal that there is a significant effect at the significance level ( $\alpha \geq 0.05$ ) for the use of the treatment (flipped learning strategy) in the development of the reading comprehension skills in the English language among 4<sup>th</sup> grade students. Here, the calculated F value reached 34,902 and its statistical significance is less than 0.05. By reference to the arithmetic means, it can be inferred that the significance effect was in favor of the experimental group.

The results of this study align with the result of Al Mashaqbeh's (2019) study which showed that there are statistically significant differences between reading comprehension skills in English due to the employment of the strategy in favor of the experimental group. Also, Al Enezy's (2019) study demonstrated that there were statistically significant differences ( $\alpha = 0.05$ ) in the average scores in favor of the experimental group in the post-test.

This is also consistent with the results of Al-Amayra's (2020) study, which showed a significant effect of teaching by hot seat strategy to improve reading comprehension and critical thinking skills in favor of the experimental group. Likewise, this agrees with the results of Al Gatawneh's (2007) study which revealed that there was a statistically significant difference ( $\alpha = 0.05$ ) in the mean scores of the two groups on the entire reading comprehension test, and on each domain of the test in favor of the experimental group. The study concluded that more research is recommended to provide additional knowledge concerning the replication of the experiment at other different levels of learners in school.

Further, Ebnian (2019) conducted a related research study that included a reading comprehension test and a scale to assess participants' attitudes toward the flipped learning strategy using certain research instruments. The research showed that the flipped classroom strategy positively impacted the improvement of EFL reading comprehension among university students.

The results from Al Rewely's (2019) study showed significant differences in the development of creative reading skills between pre- and post-tests. The



experimental group achieved a total average of 13.44, whereas the control group averaged 11.51. Based on the study's results, several recommendations and proposals were presented to activate the strategy to develop creative reading skills in teaching English.

Also, the results of AlNashwany's (2016) study showed significant differences in favor of the experimental group to test reading comprehension skills. It demonstrated the existence of substantial differences and statistical function for the experimental group, which confirms the role of the flipped learning strategy in the endurance of the impact of learning. Similarly, Abdullah's (2020) study showed that there is a significant difference between the mean scores of the two (experimental and control) groups in the post-use of reading comprehension test as well as the phonological awareness test in favor of the experimental group. Finally, the results of Irsheed's (2022) study demonstrated that there were significant differences ( $\alpha = 0.05$ ) between the scores of the two study groups on the reading comprehension test as well as all skills domains in favor of the experimental group students who received instruction by using the flipped learning strategy.

The researcher attributes this result to the use of the target flipped learning strategy which contributed to the rise of the level of reading comprehension skills among the students in the experimental group, as the activities and applications that they practiced in the classroom complemented the videos that were available to them at home, which can be referenced when needed.

Also, this result may be attributed to the point that teaching by employing the flipped classroom strategy improves students' motivation for learning to read, unlike the conventional strategy, which depends on the teacher's notes, questions, comments, answers, and images of reinforcement that the student receives from the teacher. Through teaching using the class strategy, the reinforcement may come from the practical activity itself, and from the excitement the learner feels while presenting the information and the practical application he had conducted. Relevant analysis and reflection on the results showed that the differences favor the experimental group on the educational achievement test.

The use of the flipped learning strategy, the presentations it contains, and watching videos represent a new way for students in the fourth grade of primary school. This is because it is more interesting for them than the traditional method. With attractive elements that stimulate viewing presentations, as well as the freedom to choose the time and place of learning, this method stimulates social and participatory relations between the parties to the educational process, within the framework of an effective educational environment that works to benefit from technological progress and techniques in the teaching process, and so reduces the total dependence on the teacher. This method stimulates students' self-learning, curiosity, and searching for information on their own, and it increases their motivation as the related literature reveals.

The results of this study revealed that the flipped classroom strategy had a clear impact on the continuity of the influence of previous learning, and its transfer to the classroom. This is because this strategy focuses on the student's self-learning, and makes it the core of learning, which contributed to the development of reading comprehension skills among the experimental group students in the English language.

The researcher refers to this result as the capability of the flipped learning strategy to expand students' intellectual abilities in reading comprehension. The academic content was transformed through flipped education into the material presented in the form of dialogue activities, considering individual differences among students, as the learning process turned into an easy method that allows students to respond to the reading comprehension content of the course.

## 5.1 Recommendations

Based on the study results, the researcher recommends the following:

- Applying the Flipped Learning Strategy to teaching English and other similar subjects in primary schools in the State of Kuwait.
- Conducting training courses for English language teachers on how to design lessons in the form of videos that are consistent with the educational content of the English language subject.
- Designing English language curricula in a way that considers flipped learning in some of its academic units.
- Paying attention to developing reading comprehension skills at all levels, starting from the primary stage to the secondary stage.
- Directing those in charge of preparing textbooks to provide textbooks with essential reading skills at all learners' levels.
- Reconsidering the content of English language textbooks by curriculum developers in line with modern AI tools and strategies in teaching reading comprehension.
- Inclusive reading comprehension should be included in teaching the reading skill.
- Conduct further studies to probe the impact of using the flipped learning strategy on developing other language skills.

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