The effectiveness of using flipped learning to improve reading skills for primary school students with learning disabilities in Kingdom of Bahrain

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ABSTRACT:

This research investigated the effectiveness of using flipped learning improve reading skills for primary school students with learning disabilities in Kingdom of Bahrain. The number of participants in this research were 27 fourth grade students with Moderate Learning Disabilities. The participants were assigned to an experiment group. The period of applying the research was 14 weeks in the second semester of the academic year (2020-2021). The instruments were reading program designed by the researcher, a pre/post reading test. The test was adopted from Dynamic Indicator of Basic Early Literacy, 2007. The pre/post-test was analysed using statistical analysis SPSS, the (Black) Modifies Gain Ratio, Paired Sample t-test and Eta squared formula. The findings revealed significant differences at 0.05 level between the pre/post-test of English reading skills with the experiment group in favour of the post-test. As a result, the reading skills for students with learning disabilities was developed by using flipped learning.

Key words: flipped learning– English reading skills – student with learning disabilities

INTRODUCTION

Reading is a complex activity. It requires the successful selection, application, and monitoring of multiple strategies, and children with learning disabilities have great difficulties acting on these requirements. More than 40 years ago,Torgesen (1977) identified such students as "inactive learners." This conceptualization was supported by a study in which students were taught specific techniques to increase retention of material read (such as how to underline). Even with such techniques, students with learning disabilities displayed erratic improvements in reading performance, unlike their peers without disabilities (Torgesen, 1982). It is important to note that many comprehension strategies are capacity demanding and may seem daunting (especially for younger children). Thus, students must be taught, coaxed, and encouraged to use strategies that they are only beginning to master (Pressley & McCormick, 1995).Therefore, The obstacle for any learner of English language is not actually the language itself. The main problem in the learning environment that the English teaching and learning are carries on in. so it is necessary to find a new way to practice English language.

Teaching English language learners presents some key challenges in the classroom. However, remembering the many assets that learners bring to the classroom—their resilience, their stories, and their multicultural experiences—can help teachers and students view these challenges not as problems, but as opportunities for growth (Ferlazzo & Sypnieski, 2018). Teaching English language in general, and reading skills, in particular, need a lot of efforts and many useful activities to enhance student learning. During the teaching time, some challenges face the educators like, student's needs, and students' abilities, for example, some students need a lot of effort to understand vocabulary meaning or grammatical rule. These difficulties in understanding may be because students' abilities are different; some students are missing

their classes for different reasons. All of these factors will affect students' performance inside the classroom or at home.

Reading is a process of constructing meaning from a written text. As Wixson & Lipson(1991) define it, reading is "the process of constructing meaning through the dynamic interaction among the reader's existing knowledge, the information suggested by the written language, and the context of the reading situation" . Reading a paragraph as homework for students with learning disabilities is one of the critical issues in teaching English. If students' understanding is not clear inside the class, they will face some difficulties in doing their homework. The students will stick to some enquiries, and they will wait for the next class. In this case, teacher will use the next class time for explaining the homework, or he will ignore the homework explanation. From, my experience as a English teacher, this type of students needs an extra time during the break time or after school which might help instead of losing the class time. Therefore, the main point here is how to use the face-to-face time effectively (Wixson & Lipson, 1991).

Students with learning disabilities are not aware of how their minds work and fail to use strategies that represent the dynamic processes underlying effective learning and academic performance (Cortiella & Horowitz, 2014). In support of this, many neuropsychologists and psychiatrist associations agree that individuals with learning disabilities have neurologically-based processing disorders which means that their brains process information differently than most people. These information processing disorders manifest themselves in students' failure to independently apply effective learning processes and to monitor their own learning. More specifically, these information processing disorders manifest themselves in students' failure to:
(a) Apply learning strategies,
(b) Orchestrate among various strategies,
(c) Change strategies when they don't work, or make adaptations to them when necessary

These failures in turn interfere with acquisition and use of one or more of the following language skills:
(a) Oral communication,
(b) Reading comprehension,
(c) Written expression (Kozey & Siegel, 2008).
The information processing disorders can also lead to frustration, disappointment, low self-esteem and withdrawal from school (Kaplan *et al.*, 2001).

Moreover, how we offer an effective support to our students in their homework and practicing reading skills. Teachers should use a variety of the new teaching methods to meet the student's needs. One of the new teaching methods in the education field, can be used to meet every student every time, is called flipped classroom, by moving the lesson outside the classroom via technology and moving homework and exercises with concepts inside the classroom via learning activities (Bergmann & Sams, 2012).

The use of technology is necessary in applying flipped classroom instruction, where the computer takes over the task of providing the lesson content so that class time can be spent actively using the content, which was learned. Flipped learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter (Network, 2014). The idea of shifting instruction to students before the class and using class time for assignments allows students to learn the basic concepts on their own and explore the concepts in depth during the class(Olakanmi, 2017).

Flipping the classroom has changed the teacher's role. The most significant benefits of using flipped classroom instruction in teaching, is the increasing in the class interaction: Teacher to student and student to student. Since the role of the teacher has changed from the presenter of content to learning coach, and they

will not rely on the teacher as the main resource of knowledge (Roach, 2014).

The flipped learning is considered as the focus of many teachers recently, many teachers tried the flipped learning in different ways, different tools, to teach different subjects.

As Lewis (2011) states, "In today's world where a high percentage of students need or will need to be able to speak English outside the classroom, there is an absolute necessity to develop communicative competence as an integral part of an effective EFL syllabus" (Lewis, 2011).

Technology has given students and teachers actual educational restructuring that develops learning skills. Academic administrators and teachers must appreciate information technology in a students' education (Albalawi, 2018). Successful learning requires getting knowledge on regular bases and keeping it memorable as long as possible.

The problem with traditional learning methods is that the learner's mind glued in its state and it does not provide any motivation to them to get new knowledge and improve their skills. Small nuggets through flipped learning provides a new teaching paradigm, which can allow knowledge and information to, divided into small chunks and deliver it to the learners. It can make the learning subjects easy to understand and memorable for a longer period (Bergmann & Sams, 2012).

Students become the subject in the classroom. They acquire knowledge with the methods of active learning such as discussing with classmates and putting enquiries to teachers. Therefore, the difference between flipped classroom and traditional classroom can be summarized as follows:

(1) The role of teachers changes from imparter of knowledge to   instructor of knowledge, and the role of students changes from passive learner   to active learner.

(2) In flipped classroom, teaching methods are dominated by other ways (e.g. group discussion and case study) than traditional lecturing.

(3) Teaching mode is transformed from traditional face-to-face instruction to video-based distance learning or interesting activities in combination with class coaching, to help students master and apply knowledge effectively.

(4) Application of modern technology. New educational technology and means like internet and video are integrated in former classroom instruction (Khalaf, 2018).

Research Questions

This research answered the following questions:

The research main question:

What is the effect of using flipped learning on improving English reading skills for students with learning disabilities in primary school in kingdom of Bahrain?

The research sub Questions:

1-1-What are the English language reading skills for the grade four students with learning disabilities?

1.2. What is the proposed design of flipped learning to improve reading skills for primary school students with learning disabilities in Kingdom of Bahrain?

1.3 What is the effectiveness of using flipped learning to improve reading skills for primary school students with learning disabilities in Kingdom of Bahrain?

Research Hypotheses

1-There is a statistically significant difference at the 0.05 level between the scores mean of the experiment group on total scores of reading skills pre/posttest in favor of the posttest after using students with learning disabilities who study by the flipped learning strategy.

2-There is a statistically significant difference at the 0.05 level between the scores mean of the experiment group on **Letter Naming Fluency (LNF)** pre/posttest in favor of the posttest after using students with learning disabilities who study by the flipped learning strategy.

3-There is a statistically significant difference at the 0.05 level between the scores mean of the experiment group on **Phoneme Segmentation Fluency (PSF)** pre/posttest in favor of the posttest after using students with learning disabilities who study by the flipped learning strategy.

4-There is a statistically significant difference at the 0.05 level between the scores mean of the experiment group on **Nonsense Word Fluency (NWF)** pre/posttest in favor of the posttest after using students with learning disabilities who study by the flipped learning strategy.

5-There is a statistically significant difference at the 0.05 level between the scores mean of the experiment group on **Word reading fluency (WRF)** pre/posttest in favor of the posttest after using students with learning disabilities who study by the flipped learning strategy.

6-There is a statistically significant difference at the 0.05 level between the scores mean of the experiment group on **Oral Reading Fluency (ORF)** pre/posttest in favor of the posttest after using students with learning disabilities who study by the flipped learning strategy.

7-There is an effectiveness of using the flipped learning strategy on developing the reading skills of students with learning disabilities.

Research importance

1. Frequently using technology has a positive effect on the learner's outcomes.
2. The use of technology in the lesson keeps the attention of the learners.
3. A learning disability refers to a retardation disorder, or delayed development in one or more of the process of speech, language, reading, writing, arithmetic, or other school subject resulting from a psychological handicap caused by a possible cerebral dysfunction and/ or emotional or behavioural disturbances.
4. It is important to use strategy that may affect positively to improve the students with learning disabilities to achieve progress in English language, here my focus will be reading skill.

Research Limitation

During the implementation of the study, some factors considered as a cause of limitation of the study.

1-Sample size and participants: 27 students with learning disabilities in Al-Imam Malik Bin Ansa Primary Boys public school, Riffa city, kingdom of Bahrain.

2-Subject: English reading skills for students with learning disabilities in primary school.

3-Timeline: second term - 14 weeks – academic year 2020-2021.

Research Methodology:

The researcher used the quasi-experimental approach. This is due to its relevance to the nature of humanities research, and is represented in a pre-test of the research sample then the integration of students in the learning process through a flipped learning environment then applying a post –test on the research sample.

Participants

27 fourth grade students for the year 2020-2021in Al-Imam Malik Bin Ansa Primary Boys public school located in Riffa city, located in kingdom of Bahrain, a country where English is taught as a school subject, starting with grade 1 and up to grade 12. All the participants were native speakers of Arabic. They were studying EFL at a rate of 5 hours per week in accordance with the curriculum requirements proclaimed by the National Ministry of Education. (n=27), these students are identified for special education as Moderate Learning Disabilities by MOE according to a set of diagnostic tests. They usually attend in the regular classroom with additional support.

Research Variables:

The independent variable was flipped learning strategy. While the dependent variable was the readings skills for students with learning disabilities in primary school in kingdom of Bahrain.

Definition of Terms:
The flipped classroom instruction:

It is a relatively new teaching strategy attempting to improve student engagement and performance by moving the lecture outside the classroom via technology and moving homework and exercises with concepts inside the classroom via learning activities (Sams & Bergmann, 2012).

Traditional Classroom:

An instructional setting in which students receive instruction from a teacher during class time, tend to be passive recipients of knowledge Lave(1988), and practice or another supplemental work is assigned to be completed by the student at home.

Hug(2005) rather than limit micro learning to a single definition, Hug stipulated that micro learning has certain characteristics. Micro learning is relatively short in duration, ranging from a second to up to an hour. It consists of small units of

content such as limited amounts of text and narrow subject matter and takes on the form of fragments of knowledge.

Learning disability:

The Learning Disabilities Association of Canada defines learning disabilities as follows:

"Learning Disabilities" refer to a number of disorders, which may affect the acquisition, organization, retention, understanding, or use of verbal or nonverbal information (Stegemann, 2016). These disorders affect learning in individuals who otherwise demonstrate at least average abilities essential for thinking and/or reasoning. As such, learning disabilities are distinct from global intellectual deficiency. The term learning disability covers a range of disabilities and can vary significantly in nature and in severity. Therefore, requests for individual accommodations in an academic setting can vary between and among students identified as having learning disabilities.

Instruments

Reading skills chick list

- A reading skills chick list was prepared by the researcher according to the components of reading which lead to independently comprehending the intended message being relayed in the written content are Phonemic awareness, Phonics, Oral reading fluency, Vocabulary and Comprehension (Whalon, 2009). It can be defined operationally as the skills which help Learning Disabilities pupils to understand written text. Vocabulary and comprehension, Decoding words, and Reading fluently are the most important categories of reading skills and submitted to jurors to identify the skills suitable to the aim of the study and the level of 4th grade students with learning disabilities.

- **Measurement tools design**

Description of the Pre-Post Dynamic Indicator of Basic Early Literacy (Good *et al.*, 2002)test

Dynamic Indicators of Basic Early Literacy Skills (DIBELS) comprise a set of procedures and measures for assessing the acquisition of early literacy and reading skills from kindergarten through sixth grade. DIBELS were designed for use in identifying children experiencing difficulty in the acquisition of basic early literacy skills in order to provide support early and to prevent the occurrence of later reading difficulties. In this study the Indicator was used as only five subtests.

• **Letter Naming Fluency (LNF)**:

Description DIBELS Letter Naming Fluency (LNF) is a standardized, individually administered test that provides a measure of risk. Students are presented with a page of upper- and lower-case letters arranged in a random order and are asked to name as many letters as they can. LNF is based on research by (Marston, 1988). Students are told if they do not know a letter they will be told the letter. The student is allowed 1 minute to produce as many letter names as he/she can, and the score is the number of letters named correctly in 1 minute. Students are considered at risk for difficulty achieving early literacy benchmark goals if they perform in the lowest 20% of students in their district. That is, below the 20th percentile using local district norms. Students are considered at some risk if they perform between the 20th and 40th percentile using local norms. Students are considered at low risk if they perform above the 40th percentile using local norms.

• **Phoneme Segmentation Fluency (PSF):**

Phoneme Segmentation Fluency (PSF) is a standardized, individually administered test of phonological awareness (Good III, 2001). The PSF measure assesses a student's ability to segment three- and four-phoneme words into their individual phonemes fluently. The PSF measure has been found to be a good predictor of

later reading achievement (Kaminski, 1996). The PSF task is administered by the examiner orally presenting words of three to four phonemes. It requires the student to produce verbally the individual phonemes for each word. For example, the examiner says, "sat," and the student says, "/s/ /a/ /t/" to receive three possible points for the word. After the student responds, the examiner presents the next word, and the number of correct phonemes produced in one minute determines the final score. The PSF measure takes about 2 minutes to administer and has over 20 alternate forms for monitoring progress. The benchmark goal is 35 to 45 correct phonemes per minute. Students scoring below may need intensive instructional support to achieve benchmark goals.

- **Nonsense Word Fluency (NWF):**

Nonsense Word Fluency (NWF) is a standardized, individually-administered test of the alphabetic principle – including letter-sound correspondence and of the ability to blend letters into words in which letters represent their most common sounds (Kaminski, 1996). The student is presented an 8.5" x 11" sheet of paper with randomly ordered VC and CVC nonsense words (e.g., sig, rav, ov) and asked to produce verbally the individual letter sound of each letter or verbally produce, or read, the whole nonsense word. For example, if the stimulus word is "vaj" the student could say /v/ /a/ /j/ or say the word /vaj/ to obtain a total of three letter sounds correct. The student is allowed 1 minute to produce as many letter-sounds as he/she can, and the final score is the number of letter-sounds produced correctly in one minute. Because the measure is fluency based, students receive a higher score if they are phonologically recoding the word and receive a lower score if they are providing letter sounds in isolation. The NWF measure takes about 2 minutes to administer and has over 20 alternate forms for monitoring progress. The benchmark goal for Nonsense Word Fluency is 50 correct letter sounds per minute. Students scoring below 30 need intensive instructional support to achieve reading goals.

- **Word reading fluency (WRF):**

WRF assesses students' ability to read words from a list. Students are presented with a list of real words and are tasked with verbally identifying them. WRF forms include both decodable and non-decodable high-frequency words. A student's final score represents the number of correctly identified words in one minute. The student is presented with a list of VC and CVC words (e.g., FOR, NOT, IS) and asked to read the words. The benchmark goal for (WRF) is 28 correct words per minute. Students scoring below 10 need intensive instructional support to achieve reading goals.

- **Oral Reading Fluency (ORF)**

ORF is a standardized, individually administered test of accuracy and fluency with connected text. ORF is a standardized set of passages and administration procedures designed to (a) identify children who may need additional instructional support, and (b) monitor progress toward instructional goals. The passages are calibrated for the goal level of reading for each grade level. Student performance is measured by having students read a passage aloud for one minute. Words omitted, substituted, and hesitations of more than three seconds are scored as errors. Words self-corrected within three seconds are scored as accurate. The number of correct words per minute from the passage is the oral reading fluency rate. In general, oral reading fluency provides one of the best measures of reading competence, the benchmark goal for (ORF) is 40 correct words per minute. Students scoring below 10 need intensive instructional support to achieve reading goals.

The validity of reading skills Test
1-Juries Validity

The researcher made sure that the chick list, reading skills test was valid by the juries - as it was previously showed – and the necessary modifications were made accordingly.

2-Validity of reading skills test for EFLs with learning disability

DIBELS specifically assesses the acquisition of letter names and sounds, the quality of phonemic awareness, and the basic decoding skills in k-9 aged school children. The test is highly predictive of later student success in learning to read, is sensitive to instructional changes, and has demonstrated robustness to retesting without reducing the validity or reliability of the measures (Good, 2002) . The use of DIBELS subtest with EFLs are acceptable according to (Vanderwood, 2014) **.**

An assessments for EFLs at risk for RD should include the same measures typically used to assess RD in native students (Lipka, 2007). For English language learners who are learning to read in English, Dynamic Indicator of Basic Early Literacy is appropriate for assessing and monitoring progress in acquisition of early reading skills. It has been used successfully with English language learners (Haager, 2001). Also children's who are English language learners can learn to read as well in English as their English-speaking peers (Geva, 2006)

3-Validity of Scores from Instruments

Several investigations have been conducted on measures used to identify RDs in native speakers to test their viability with non-native English speakers in EFLs, and regular classroom settings. (Lesaux, 2007). Working with children from different backgrounds, researchers have used common measures in English to examine phonological and language-processing skills, including the Woodcock-Johnson III (Woodcock, 2003) the Dynamic Indicators of Basic Early Literacy Skills (Good *et al.*, 2002); and measures of phonological, syntactical, and memory processes based on English skills. The studies of these learners, who ranged in grades from kindergarten to sixth (age 13), found that these measures were valid and reliable for the purpose of making inferences regarding strengths and weaknesses in English reading skills proficiency. Although children in bilingual and EFL programs might not have fared as well as their native-speaking peers, they did appear to have

similar language development. That is, alphabetic knowledge and phonological processing were key contributors to reading acquisition (Shore, 2009).

Reliability for reading skills test

The sub-tests have published test-retest reliability statistics are shown down in **Table (1) Reliability for reading skills test (Good *et al.*, 2002).**

Reading Measures	Adapted from	Reliability
Oral Reading Fluency (ORF)	Dynamic Indicator of Basic Early Literacy	0.90
Phoneme Segmentation Fluency (PSF)	Dynamic Indicator of Basic Early Literacy	0.87
Letter naming Fluency (LNF)	Dynamic Indicator of Basic Early Literacy	0.94
Nonsense Word Fluency (NWF)	Dynamic Indicator of Basic Early Literacy	0.87
Word reading fluency (WRF)	Dynamic Indicator of Basic Early Literacy	0,87

Reading Program

(Table (2) Reading program instruction and Organization

Program Description
The researcher designed a reading program whose content was taken from Remedial Reading Drills   Fernald, Monroe, and Gates methods (Hegge, 1940) .They devised a method which was used primarily with mentally retarded and dull-normal children. The Remedial Reading Method described by(Hegge, 1940). He states that the present-day experiments and discussion on phonics are not usually applicable to the individual treatment of reading defects, but rather have been used for the classroom teaching of the normal child, that is, either normal in intelligence or in reading for his mental capacity. The method has proved successful with children who had failed to profit from various conventional school methods over a period of years.
Learning Objectives
To build skills in the areas of phonemic segmentation, sound/symbol relationships, decoding, encoding, advanced word-analysis, vocabulary development, sight word reading instruction, fluency, comprehension with visualization, and metacognition.
Develop print awareness in the reading process by:
a. identifying all upper- and lowercase letters
b. sequencing the letters of the alphabet
Develop phonemic awareness in the reading process by:
a. identifying sounds in spoken words
b. producing rhymes in response to spoken words
c. distinguishing orally presented rhyming pairs of words from non - rhyming pairs
d. recognizing spoken alliteration or groups of words that begin with the same onset or initial sound
e. blending spoken onsets and rimes to form simple words
f. blending spoken phonemes to form one -syllable words
g. isolating the initial, medial, and final sounds in spoken words
h. segmenting spoken words into two or three phonemes
Develop phonics in the reading process by:
a. producing and writing letter(s) for most short vowel and consonant sounds
b. reading high frequency words
c. blending letter sounds to decode simple words
d. recognizing that new words can be created when letters are changed, added, or deleted and using letter sound knowledge to write simple messages and words
Target Population:
Originally designed to help all students who read below grade level. Remedial, at-risk, learning disabilities and students who have not been successful with traditional teaching

methods and who require multisensory language instruction to learn phonics, can also benefit.

Reading program instruction and Organization inside lessons.

includes the most frequent sounds, namely the sounds of the consonants, the short vowels, and the sounds of ee, sh, oo, ch, tch, ar, ay, ai, or, old, ea, oa, ck, cw, mi, ing, all, ight, th, wh, qu, er, ir, ur, and final e

The <u>first section</u> of lesson 1 is very simple in that within each line only the initial consonants differ from that of the following word, thus

s a t   m a t   r a t etc. cap sap   map etc .

The <u>second section</u> of lesson 1 is a similar presentation of a different problem, using much the same words: s a t   s a p   S a m   etc.

m a p   m a n   m a d   etc.

<u>In the third section</u> the problem of sounding and blending is slightly more complex, in that both consonants are different in consecutive words, although for the most part the same words are used as in the first two sections: s a t   m a n   f a t   t a n etc.

<u>In the fourth section</u> the same words are repeated again, but the letters are spaced more closely, and the child is now approaching normal word reading, although still by the phonic method. The fourth section is as follows: Sat cap rag can etc.

lesson 2 is similar to lesson 1 with the exception that the sound of short o (as in hot) is presented instead of short a .

Review lessons are introduced frequently for several reasons.

•The first is to give the slow learner further drill on the sounds he has learned without going back,

•the second is the presentation of various sounds in the same drill, which is more complex than the presentation of only one sound in each drill. The review lessons are probably the most essential part of the drills because they require the differentiation of sounds that have been learned in a different setting.

lesson 4 introduces the sound of short i as in sit

and lesson 5 reviews a, o, and i.

lesson 6 introduces the sound of short u as in sun

By the time **lesson 7** is reached the child has already had much repetition of the consonants and of the four short vowels, a, o, i, and u.

lesson 8 introduces the sound of ee as in k-ee-p.

. The sound of ee is presented as a configuration, separated from the consonants so that a child will learn to respond to ee as a whole, and not by any rules which he must learn. The words are presented thus: d-ee-d, f-ee-d, etc .

Whenever possible every 28 lessons follows this general method of construction (Hegge, 1940).

The validity of The Remedial Reading program
1-Juries Validity

The researcher made sure that Remedial Reading program was valid by the juries - as it was previously showed – and the necessary modifications were made accordingly.

2-The validity of The Remedial Reading program for learning disabilities

-   The Remedial Reading Drills are designed primarily to aid children who have become retarded in reading. In applying these exercises, the remedial teacher should first determine the status of the child and whether these exercises are applicable to his difficulties. In general, the exercises are most effective with children having the following characteristics:

(1) the reading status of the child is below the fourth grade;

 (2) the child has a severe special reading disability;

(3) the child is educable in sound blending;

 (4) any extreme visual or auditory defects have been corrected;

 (5) the child is motivated and cooperative. In many cases cooperation may be difficult until some degree of success has been attained (Hegge, 1940).

The flipped class room environment

 Flipped class room objectives throw Microsoft teams

In Microsoft teams the researcher created a teams named Reading class, it consists of 3 sub channels as showed:

• Pre lesson materials
• During lesson materials
• Post lesson materials

The researcher uploaded all materials inside these channels and add our 27 participants to this teams and divided them to 3 groups do deal easily with them. The researcher used features of Microsoft Teams such as scheduling meetings with students.

Pre-Classroom Session throw Microsoft teams

Students had to complete the following tow tasks:

a) videos based learn

The researcher made videos that are less than 10 minutes and contains animation in order to attract the students and not to make them feel bored. It was uploaded to the **Pre lesson materials channel** in **Microsoft teams.** The videos were used as a teaching and learning tool supportive to reading skills the content of the videos was selected, arranged and modified according to the skills that students should acquire and improve. Movements and real videos are used in the design in order to activate the students' interest, attitudes, attention and understanding of the text. In addition, the researcher added related activities to each lesson so as to improve the reading skills.

b) Preparatory tasks

Learners had to take notes while watching the videos, and do preparatory tasks in live worksheet activity readiness for the in-class activities. As a result, this task helped learners fill in the gap in their knowledge before formulating solutions. This encapsulates the essence of active learning and individualized learning, by which students acquire deeper knowledge, driven by the need to apply new knowledge based on their preferences and convenient conditions. It also created a rich environment where students could feel personalized, and the teacher's understanding of students' comprehension via video lectures could be fostered.

### Online activities instead of In-class activities

The researcher in this stage makes meeting schedule in reading class in Microsoft teams and let students join the on line class. The researcher shares the contents with the students. With considerable focus on socio-constructivist and active learning strategies to help students enhance their competence and sharpen their skills. These activities uploaded to the during lesson materials channel in Microsoft teams. The online -class activities followed the sequential structure in as flown.

Table (3) The online -class activities sequential structure

STEPS	Activities descriptions
Revision (20 minutes)	This step involved two small tasks: • Re watching video • Pre-lesson quiz with the use of live worksheets.
practice (30 minutes)	This step involved two tasks: • Student reading practice • Student activates using padlet to solve activity from student pocket
assignment (10 minutes)	This step involved one task: • students solve Wordwall

Post-Class:

Regarding the post-class activities, learners were required to reflect on their strengths and weaknesses during the session, they also were reminded that their first home work papers would be uploaded online with the teacher's comments and marking results. The researcher use quizzes app to assents student and give them feedback. And also these activities uploaded to the post lesson materials channel in Microsoft teams.
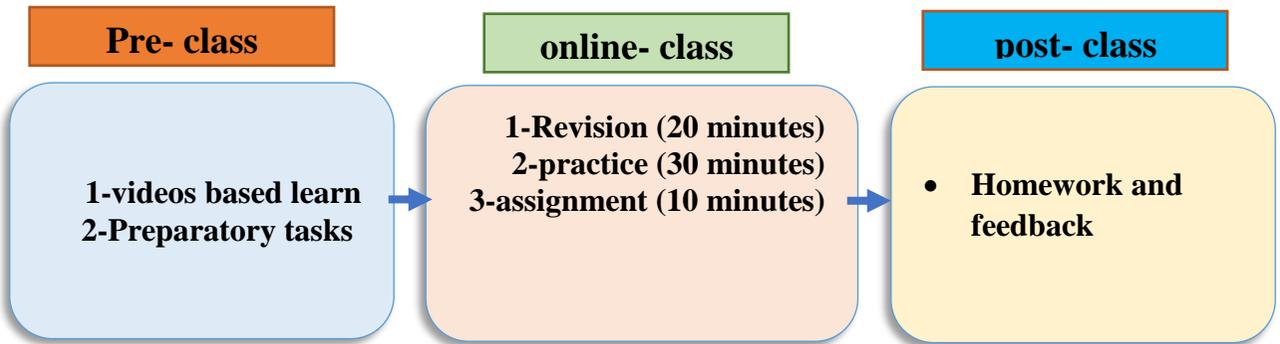
Figure (1) flipped class objectives

Validity of the M S teams for EFL classroom

Microsoft Teams is effective online learning platform that is currently available in the market. It is a cloud app digital hub that brings conversations, meetings, files and apps together in a single Learning Management System (LMS)(Martin, 2019)**.** It can easily be downloaded as a desktop version or a mobile application. It can be stated that online learning materials and learners' interactions are important factors which help students successfully achieve their learning goals (Rojabi, 2020).

An internet connection has been crucial in the era of globalization to enhance human activities in various activities of economic, culture, defence, and many others, especially in the EFL classroom setting. Microsoft Teams as an innovative online learning platform provides unique features to enhance its potential to help EFL teachers to conduct better interaction as well learning environment in online learning. Via Microsoft Teams (Rojabi, 2020).

The implementation of online learning platforms has been studied and reported in several research projects. In a recent study by Alameri *et al.* (2020) the students' perceptions of e-learning through using Moodle, Microsoft teams and Zoom platforms have

been examined at the University of Jordan. They reported that using Moodle, Microsoft teams and Zoom platforms during COVID-19 pandemic has a positive effect on their self-study and academic achievement in general.

Preparing student for the Online flipped learning Content

1- The researcher covered the following points to prepare the student for the Online flipped learning Content:

Checking if all participants were added to the team and he divided them to small group the same groups used in special needs department in the school

2- Making students recognized to the components of the team.

3- Checking if everyone has a computer and network or no.

4- Checking if the participants could deal with MS teams and join to the on line meeting.

5- Checking if the participants could deal with quizizz, live worksheet and word wall programmers

6- The researcher gave students a training session about how to use the materials inside the reading class teams.

7- The researcher instructed the learners with the meaning of flipped learning and how they could use this strategy during their participations in the program.

8- The researcher determined the beginning time that started in February and the closing time of the program that end in May 2021.

9- The researcher made announcement for the lesson in the M.S teams. and refer to the lesson name and pre lesson materials (video, Liveworksheets) students are required to watch video and solve live work sheet and summit it.

10- The researcher made meeting schedule in reading class in Microsoft teams and let students join the on line class.

11-The researcher shares the during lesson materials with students (lesson words, Padlet and wordwall.net) in the online meeting.

12-After the students finished online meeting, they moved to log in and finish the required home work in the post lesson activities, the resources for this part, synchronously and asynchronously

13-The researcher repeated the steps in all lessons, all lessons hade finished after 14 weeks from the beginning of the pilot study.

Data analysis and Results

The researcher applied the research instrument on the experiment group in the second term of the academic year 2020-2021, which was the pre/post reading test. The test was conducted before and after the treatment of using flipped learning strategy. Then he checked the scores of the test. The researcher used the statistic program SPSS to conclude and interpret the results. The researcher used the following statistical methods: -

- Paired Samples t-test to compare the means of the pre/post-test.
- Eta square formula to measure the effect of flipped learning strategy.
- (Black) Modifies Gain Ratio to measure the effect size of the flipped learning strategy.

First, second, third, fourth, fifth Hypothesis of the research

In the present study, the researcher proved all the hypotheses. He found that the scores mean of the experiment group on the first, second, third, fourth and fifth categories pre –test were (17.22, 5.37, 14.59, 11.59, 9.59) and the scores mean of the experiment group on the first, second, third, fourth and fifth categories post –test were (30.70, 26.04, 37.07, 33.44,40.63). According that ''There is a statistically significant difference at the 0.05 level between the scores mean of the experiment group on the first, second, third, fourth and

fifth categories pre/post-test in favour of the post-test because of using the strategy of flipped learning and Eta squared values of these categories means that the flipped learning strategy is very effective to develop the first, second, third, fourth and fifth categories

Sixth Hypothesis of the research

As a summary of the findings of the study, the scores mean of participants' pre on total scores of reading skills test is (58.37) with standard deviation (58.37), But the scores mean of participants' post on total scores of reading skills test is (167.89) with standard deviation (7.165) Furthermore, the progress mean of on total scores of reading skills   test is (109.519) with standard deviation(12.516) and the (t) value is (45.469) and it is statistically significant at (0.05).The sig. 2(tailed) is (0.00) and it is less than (0.05),so we reject the Null Hypotheses and accept the sixth Hypothesis of the Study. Also Eta square ($\sum^2$) value is (0.988) and its impact is high on developing total scores of reading skills test by using the strategy of flipped learning.

Seventh   Hypothesis of the research

In the category Letter Naming Fluency (LNF) The (Black) Modifies Gain Ratio is (2.189), In the category Phoneme Segmentation Fluency (PSF) The (Black) Modifies Gain Ratio is (1.743), In the category Nonsense Word Fluency (NWF) The (Black) Modifies Gain Ratio is (1.839), In the category Word reading fluency (WRF) The (Black) Modifies Gain Ratio is (2.166), In the category Oral Reading Fluency (ORF) The (Black) Modifies Gain Ratio is (1.729). In Total Scores of reading skills test Black value is (1.904).The (Black) Modifies Gain Ratio in all categories was more than (1.2), this indicates that There is an effectiveness of using the flipped learning strategy on developing the reading skills of students with learning disabilities.

Conclusion

The findings of this study put it clear that using the strategy of flipped learning through MS teams in teaching reading skill for students with learning disabilities was successful and had a great

and significant influence on decreasing the students' mistakes in reading and increasing their academic achievement. The study proved that the flipped learning strategy has many benefits on teaching reading skills. These benefits are:

1- providing feedback that motivates learning forward.
2- activating learners to be guides for themselves.
3- Making reading materials available at any time through MS teams.
4- giving students a room to practice reading in the online class.

Recommendations

In the light of the results, the researcher provides recommendations for curriculum designers and decision makers, school administrators, supervisors and teachers of English as well as suggestions for further research.

Recommendations for Curriculum Designers and Decision Makers

The researcher suggested the following recommendations to the curriculum designers and decisions makers due to the great role they play in the educational process:

- Providing suitable training opportunities for teachers of English in all stages of education to increase their ability to implement flipped learning strategy in teaching the other skills of English language.
- Asking for building centers for the production of e-learning content in all educational institutions and applying the quality standards, instructional design, teaching and learning theories, and modern strategies.

Recommendations for School Administrators and Supervisors

The researcher recommends the following:

- Training teachers in schools to use the strategy of flipped learning in teaching the other English skills, as the researcher applied the strategy on reading skills only.

Recommendations for Teachers of English

The researcher recommends the following to the teachers of English:

- Providing encouragement for students to be able to learn on their own with the use of the internet.
- Having training sessions on how to use and create up internet ready-made content to boost EFL learning.
- Increasing the awareness of teachers about the significance of using the strategy of flipped learning in the teaching of reading skill for students with learning disabilities.
- Using virtual flipped learning should be embraced by teachers to enhance equal and satisfactory reading skills among students.

Suggestions for further researches

The researcher suggests more researches to investigate flipped learning strategy including the following:

- The introduction of more research on the use of flipped learning strategy for other skills of English; listening, speaking and writing.
- Investigating virtual flipped learning with different platforms not only M.S teams.
- Investigating virtual flipped learning with different categories of student

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