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The Impact of Using the Flipped Classroom Strategy on Enhancing EFL University Students' Reading

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ABSTRACT

The Flipped Classroom is an educational strategy that is based on reversing the teaching learning process, where students receive the new material on videos and then come to the class for participation an discussion homework, activities and projects. This study investigated the effectiveness of using the flipped classroom Strategy on enhancing and developing EFL University students' reading comprehension skills compared to the traditional one. To achieve the objectives of the study , the researchers used the quasi experimental method. The participants of the study were 20 first-year English language majors at Ajloun National University in the academic year 2023/2024. They were divided into two groups: experimental, taught using the flipped classroom learning, whereas control was taught traditionally. The participants were exposed to pre-post tests. Al-Ghazo & Taamneh Reading Achievement Test (2017) (was used. As for initial analysis, the researchers calculated the arithmetic means, and standard deviations for the group variable. To find out the statistical difference among the arithmetic means, the t test was used to determine the differences. To test significance of the means, the researchers used the one way ANCOVA. The results revealed a statistically significant difference between the two groups in favour of the experimental group due to the use of the flipped classroom strategy, which had positive effects on students' awareness and motivation. The Study recommended that university instructors use the flipped classroom strategy as it may help students master reading materials and succeed in learning it. Also university instructors are advised to use the flipped classroom

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strategy in teaching reading to improve different reading skills.

Keywords: Reading Comprehension; Flipped Classroom Strategy; Ajloun National University Students

1. Introduction

The world also witnessed great development, innovation, and creation in technology due to the fast acceleration in computer technology that is connected to the internet. Therefore, countries all over the world try to create technological bases for their institutions in the age of technology, and one of these institutions is the educational ones, that have benefited people by the creation of education and information technology Alsobhi^[1], Hadadeh^[2] & Zemam and Suleiman^[3]. Therefore, educators see that educational institutions should cope with the new innovations and developments in technology. They set plans to use these innovations in education through designing new educational programs that are web-based to transfer the teaching-learning process from depending on the traditional strategies into new educational ones that depend on technology to be used at universities and schools. Lavidas et al.^[4] state that artificial intelligence applications are key determinants influencing teachers' intentions. They suggest that policy makers and faculty instructors can use artificial intelligence to benefit students in various disciplines, including humanities and social sciences. Faculty members can use the benefits of these applications into seminars, courses and workshops which may enhance students' Academic proficiency.

English Language is a great means for getting knowledge through interacting with world culture and scientific developments and technologies. It is also a tool for students to communicate with people all over the world through social media, Irsheid^[5] & Zemam and Suleiman^[3]. So teaching English in different world countries aims at providing students with new and modern methods of learning this Language, Abusalma^[6]. It is needed to be used to teach students so that they could understand what they read, and interact with new experiences, activities and texts (Al-Nashwan^[7]). Developing reading skills requires designing new teaching-learning programs by studying the educational environment that may result in enhancing the students' reading level (Al-Khazaleh^[8]). Therefore, the teaching-learning process requires effective and flexible Strategies to activate the edu-

cational process and reinforce both roles of the teacher and student (Wagner & Urhahne^[9]). With the new advances in technology and education, new educational strategies have been created. One of these is the flipped Classroom strategy (Al-Khazaleh^[8]).

Bristol^[10] stresses that a big number of teaching strategies tried to get benefit from the new technological innovations in teaching, one of these is the flipped learning as there is a need for new strategies to be used instead of the traditional ones that may help students who don't get benefit from the traditional ones. Al-Omary & Magableh^[11] also state that the teaching-learning process all over the world goes towards using new teaching strategies for the sake of enhancing the level of students in different learning disciplines in general and in English language skills in particular. A large number of studies in this respect stressed that the role of the teacher and the teaching strategy are the bases for the educational process. According to Al-Zahrani^[12], the use of flipped learning may promote students' creative thinking. But some difficulties were found associated with learning with the flipped classroom strategy, especially the students' lack of adequate preparation and learning tools. Bergman and Sames^[13] state that flipped classrooms help students with learning difficulties. Students receive more help from the teacher as he spends more time wandering in the classroom, providing students with the assistance they need, Goodwing & Miller^[14].

The flipped classroom strategy has a clear effect on students' learning. It develops reading comprehension skills. Through transforming the material into a flipped one in the form of dialogue and discussion activities, the process of learning reading becomes an easy one Alshati & Al-Khawaldeh^[15].

Reading is one of the main language skills. Researchers carried out a great number of studies on. This resulted in students' development and enhancement of reading comprehension skills Al-Ruwaili^[16]. An effective teaching strategy is a very important issue that university instructors should employ in teaching reading, as it is still dependent on the traditional method most of the time, it is teacher's centred.

Therefore, students feel bored, unmotivated and demonstrate poor interaction. This leads to weakness in reading skills, such as getting the main idea, referencing and writing a summary. Then a new teaching strategy came into use which is the flipped learning strategy. This strategy is described by educators as the easy way to educational technology that employs modern technology to provide suitable teaching that fulfils students' needs. This strategy provides new technical solutions for the traditional weakness resulted from using the traditional strategy. In this way teachers and students get more time for practicing dialogue and discussion, brainstorming, critical thinking, problem solving and providing better understanding of the material read in classroom. This helps students a lot since their focus is on higher thinking levels, such as analysis, application and evaluation.

Moreover, reading has a big influence on a student's ability for learning. It is a significant component of learning. Teachers should exert their efforts towards making their students more enthusiastic and motivated to learn. One of the strategies that teachers can use is the Flipped learning strategy. Researchers employ this strategy in teaching as it helps develop students' reading. Aronson & Afrstrom^[17] define flipped learning as a way of getting ready for giving a lecture with a video prepared for students to watch out of the classroom. They also define it as an educational model wherein a video is watched as a lecture at home and answering the associated assignments and practice activities. The starting point of flipped learning goes back to the year 2006 and to the two chemistry teachers (Jonathen Bermman and Arson Sam) in Colorado, who are referred to as the pioneers of this learning strategy. They noticed students' absence from lectures so they prepared video records for their lectures on YouTube so that students could easily go on with the teaching leaning process.

Nashwan^[7] investigated the effect of the flipped classroom on enhancing reading comprehension skills of the fifth-grade students. The sample was 50 students. The researcher used pre-post-test for two groups, control and experimental. The finding showed positive differences in the achievement mean scores in favour of the experimental group due to the strategy used. Al Sowat^[18] also explored the effect of the flipped strategy on 3rd-grade female students in Tabouk. The researcher used a semi-experimental design. The participants of (67) students in two groups: control (32) students and ex-

perimental (35) students. The findings of the study showed significant differences between the two groups in enhancing creative reading in favour of the experimental group.

Irsheid^[5] examined the impact of flipped learning on tenth-grade female grades' reading comprehension in Atorah government school, Jordan. The participants were 40 female graders divided into two groups: control and experimental. Pre-post-tests were used. The findings showed statistically significant differences in all reading skill domains due to the flipped classroom strategy used in favour of the experimental group. Abusaalek^[19] explored the impact of the flipped classroom strategy on Jordanian eighth graders' reading. The participants were (67) students divided into two groups, control and experimental. The researcher used a pre-post-test. The findings of the Study revealed statistically significant differences in the achievement mean scores in favour of the experimental group due to the Strategy used, which was the flipped classroom.

Hasanah & Arifani^[20] conducted a study to explore the effect of flipped learning on ESP students' reading. The participants were 49 ESP students of the accounting class. The researcher divided them into two groups: control and experimental. The researcher used a pre-post-test. The results showed statistically significant differences due to the flipped classroom strategy used in favour of the experimental group. This strategy was found helpful for students. Randall^[21] examined the flipped classroom and integration of technology on students' achievement. The findings showed that technology had positive influence on flipped classrooms as it helped facilitate learning and was motivating.

Wiranata, Arisanti & Hassanah^[22] explored the effect of the flipped classroom on state senior high school students in Probolinggo. The participants were 32 students. The study used a questionnaire and a pre-post-test. The results showed that the flipped learning strategy favours students' learning. Jdaitawi^[23] investigated the impact of the flipped classroom strategy on students' learning outcomes of the preparatory year college students at Abdulrahman Bin Faisal University. Students were divided into two groups: control and experimental. The sample was 160 students. A questionnaire was used to measure self-regulation and social connectedness. A quasi-experimental pre-post-test design was used. The results were based on ANOVA analysis. The findings showed that the flipped classroom Strategy developed a

higher level of students' connectedness, and self-regulation was promoted.

Despite the importance of teaching creative reading, some studies revealed shortcomings in teaching it due to the teaching strategies of Barrett^[24]. Therefore, new teaching strategies were introduced and used in teaching and learning reading. One of these strategies was the flipped classroom strategy, which was spread all over the world in the field of education with the help of the internet and social media. The flipped classroom strategy is a new trend that has a positive effect on students' reading comprehension. It is based on videos that a teacher prepares. Students can hear and watch the videos at home and come to the classroom for Activities and homework, Hamdan^[25]. It is a model in which the traditional classroom session is transformed into homework, activities, and discussion. The technology used in this strategy enhanced the flipped classroom effectively; it better facilitated the learning process than the traditional strategy, and students found it for greater instructional differentiation more motivating. The flipped classroom strategy also allows students to control their learning instead of being influenced by teaching inside the classroom. This strategy uses two types of learning: online and face-to-face. This provides students with the opportunity to take responsibility for listening to videos and preparing for the classroom discussion instead of being less active in traditional classrooms.

Most previous studies investigated the impact of the flipped strategy on basic and secondary school graders. Therefore, this study came to examine the influence of this strategy on university students in Jordan, as few studies were conducted on Jordanian university students.

2. Design of the Study

This design of the study is quasi-experimental using control group and experimental one. A pre-posttest was used to determine the effectiveness using the flipped classroom strategy in comparison of the traditional one, and to make sure that the two groups are identical to attain the purpose of the study.

2.1. Statement of the Problem

All through the researcher's work as an instructor of English language teaching, he noticed that university EFL

students suffer from weakness in the reading comprehension skills as most teachers used the traditional strategy. Therefore, the researcher sees that there is a need for a new strategy that may motivate students and influence their reading comprehension skills positively.

Also, after reviewing a lot of previous studies, the researcher found few studies conducted on Arab university students on the one hand the Jordanian ones on the other hand, but some foreign studies tackled this strategy Such as Borman^[26]. So, the study comes to fill the gap. It may have positive effects that may help university students enhance their level of reading comprehension, and university instructors could use it in implementing their lectures.

2.2. Purpose of the Study

The purpose of the study was to examine the impact of using flipped Classroom Strategy on university students' reading comprehension. It may have positive effects on Jordanian university students.

2.3. Importance of the Study

The flipped classroom is one of the new innovative educational strategies. Lessons can be implemented via technology in a way opposite to the traditional one. Teachers prepare videos, files of activities that are sent to students to study before he comes to the classroom for discussion and practice. This gives students enough time to study the material according to their abilities Some previous studies, such as Al-Saadoun^[27], Ismail^[28] and others, have indicated that using the flipped classroom strategy has brought about big changes in the educational process, particularly in the roles of both the teacher and the learner. This strategy provides teachers with ample chance to discuss with students their comprehension of the educational material. It also motivates students to learn individually and utilize their time to engage in educational activities. This highlights the importance of the flipped classroom in enhancing the process of learning by using technology and activating the role of the learner, making them the focus of the educational process. It also helps improve students' language skills.

Halili & Zainuddin^[29] analyzed previous studies, stated that the flipped classroom strategy has positive effects on student's reading skills enhancement. Therefore, this study

is significant as it may have positive influence on Jordanian EFL university students using flipped classroom strategy. Besides that, it may help university instructors use a new teaching strategy that is better than the traditional one. The results also may help experts in the educational field generalize its findings to be used at universities.

2.4. Question of the Study

- Is there any statistically significant difference ($\alpha = 0.05$) in the university EFL students' achievement mean scores due to the use of the flipped classroom strategy?

3. Methods and Procedures

This section presents the methods and procedures that were used by the researchers to conduct the study. It includes participants of the study, instruments, procedures, data collection and analysis.

3.1. Participants of the Study

(20) first-year English Language majors enrolled at the Department of English Language and Literature, Ajloun National University (ANU), studying reading comprehension course in the second semester of the academic year 2023/2024 participated in the study. They were divided into two groups: control (10 students) taught using the traditional strategy and experimental (10 students) taught using the flipped classroom strategy as shown in **Table 1**.

Table 1. Distribution of the sample.

Group	Number
experimental	10
control	10

3.2. Participants' Training

The researcher taught the control group using the traditional strategy inside the classroom, whereas he taught the experimental group with the flipped strategy. The researcher prepared videos for the experiment group, who listened to the videos at home and came to the class with answers to the activities to be discussed in the classroom. Moreover, the researcher prepared some activities and worksheets to be

discussed and answered in the classroom. The experiment extended for two months. Reading texts from their reading comprehension course textbook were used in teaching them.

3.3. Instrument of the Study

The researchers adopted Al Ghazo and Taamneh^[30] Reading Achievement Test 2017 and applied it. The participants were tested twice before and after training (pre-post-test). The test consisted of 30 multiple choice questions. The reading texts were taken from the reading comprehension course published by Macmillan LTD Intermediate Level 2001. The test was validated by a group of professors specialized in English language, curricula and related teaching methods, and experienced English language supervisors to express their opinions and give suggestions towards the test items. All of them consider it appropriate with slight modifications, which were taken into consideration. Then the test was given to a group of students outside the participants of the study. The reliability coefficient was calculated. The value of Cranach's Alpha coefficient for all test items which reached (0.82). This showed a suitable degree of stability and high reliability value.

3.4. Study Procedures

To achieve the aims of the study, the researchers followed the following requirements for implementing the study:

1. They got the university's approval to conduct the study.
2. They prepared a number of videos, each lasting between 6 and 10 minutes, according to the following steps:
 - a. Planning for the targeted reading comprehension skills of the required reading texts.
 - b. Providing the requirements of the flipped classroom: Computer, Internet, video production applications.
 - c. The quality of the video production was taken into account.
 - d. Adding educational activities and interactive questions to the recorded text.
 - e. Uploading the videos to the teacher's link and shared them with the experimental group.
 - f. Students in the experimental group attended the videos at home, In the classroom, the teacher discussed the

material included on each video.

3.5. Data Collection and Analysis

The researcher followed the following steps:

1. The control and the experimental groups were tested twice before and after the experiment.
2. The students' answers were checked and corrected.
3. Means and standard deviation were calculated.
4. A T-test was used to determine the difference in the mean scores between the two groups.
5. One-way ANCOVA was used.

4. Findings

This study tested two hypotheses to evaluate the effect of the impact of flipped classroom strategy on enhancing EFL university students' reading:

Is there any statistically significant difference at ($\alpha = 0.05$) between the mean scores of the control and experimental groups due to the use of the flipped classroom strategy?

The results gained by the analysis of covariance 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 developing of reading comprehension among university students, where F- value reached 107.282) with statistical significance 0.000. The difference is in favor of the experimental group. As for the Initial Analysis, the researcher calculated the arithmetic means and standard deviations for the group variable. To find out the statistically significant difference among the arithmetic means, the t test was used as shown in **Table 2**.

Table 2 shows observational variance in means, the standard deviations, and modified means due to the difference in groups (experimental, control). To test significance of the means, the researchers used the one way ANCOVA as shown in **Table 3**.

Table 3 shows a statistically significant difference ($\alpha = 0.05$) in group effect, where F-value reached (107.282) with statistical significance 0.000. The difference is in favour of the experimental group.

To find out the effectiveness degree, the researcher calculated the Eta square of (η^2) Which was (0.863); this means that 86.3% of the decrease in the experimental group.

5. Discussion

The researchers tested the study hypothesis. There is no statistical significance at ($\alpha = 0.05$) between the mean scores of the experimental group taught with the flipped classroom strategy and the control group studied with the traditional one in the pre-test. The means and standard deviations were calculated. Then, a t-test for two unrelated means ($N1 = N2$) was used to determine the direction of the difference and its statistical significance. The result indicated the presence of a statistically significant apparent difference at the significance level. To statistically isolate the pre-test differences between the two groups, to test the significance of the means, the researchers used the one-way ANCOVA as shown in **Table 2**, where the results indicated the presence of a statistically significant difference between the average scores of students in the experimental and control groups.

The findings of the study showed that there were statistically significantly differences between the students' achievement mean scores in favor of the experimental group due to the use of the flipped classroom strategy who were taught with the flipped classroom strategy. To find out the effectiveness degree, the researchers calculated the Eta square of (η^2) Which was (0.863); this means that 86.3% of the decrease in the experimental group. This means that the flipped Classroom strategy has a positive influence on university EFL students. The researchers attribute this result to the students' enthusiasm in the experimental group while learning with a new strategy, which motivated them with activities and videos, they dealt with freely and flexibly. The researcher also attributes these results to the use of the flipped classroom strategy, which aroused the students and helped them develop through dealing with a big number of ideas related to the reading text. The results conform with Irsheid^[5] demonstrated that there were significant differences at ($\alpha = 0.05$) 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 who received instruction by using the flipped learning strategy.

The results were in line with Abu saaleek^[19], Al-Ruwaili^[16], Al Sowat^[18] that there were significant differences in developing reading skills between pre- and post-tests, compared to the control group. Based on the study's results, several recommendations and proposals were presented to activate the strategy to develop creative reading skills in teach-

Table 2. Means and Slandered Deviation of the Group Variable According the two Scales of the experimental group.

Group	Pre		Post		Modified Mean	Standard Error	N
	Mean	S.D	Mean	S.D			
experimental	52.90	13.20	67.70	10.69	67.22	0.97	10
control	51.70	11.87	52.50	10.19	52.98	0.97	10

Table 3. Results of the ANCOVA.

Source	Type II Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Pre	1802.265	1	1802.265	191.090	0.000	0.823
Group	1011.826	1	1011.826	107.282	0.000	0.863
Error	160.335	17	9.431			
Corrected Total	3117.800	19				

ing English; with Al-Omari & Magableh^[11]; Nashwan^[7] that there were significant differences in favour of the experimental group in the reading comprehension skills. They demonstrated the existence of substantial differences and statistical function for the experimental group; which confirms the role of the flipped learning strategy in the enhancement of the students' level of reading skills. They also agree with Hasanah and Arifani^[20] that the flipped classroom strategy helps students be motivated, ready, and responsible for their learning. However, it does not conform with Al-Zahrani^[12] that students faced difficulties in preparation and a shortage of required tools.

The researcher attributes this result to the use of the target flipped learning strategy which was helpful and contributed to the rise of the level of reading comprehension skills among the students in the experimental group, as the activities and applications they practiced in the classroom complemented the videos that they heard at home, which can be referred to when needed. Also, the results may be attributed to the way of teaching applying the flipped learning strategy, which enhances the students' motivation level toward reading, different from the traditional strategy, which is almost teacher-centered concerning questions, comments and answers. Moreover, using the flipped learning strategy may help in students' reinforcement, excitement and enthusiasm as they feel through the practical application of the activities, the interest they receive while watching the videos freely at home.

6. Conclusions

This study was conducted to investigate the effect of the flipped classroom strategy on developing university students'

reading skills. The researchers followed scientific procedures in conducting it. The results revealed statistically significant differences in favor of the experimental group over the control one due to the flipped classroom strategy used. The flipped classroom strategy motivated the experimental group through attending the videos at home, coming to the well-prepared and ready for participation and discussion in an active educational environment, depending on themselves and bearing responsibility for their learning, which led to enhancing the level of their reading comprehension skills. 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, 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 attributes this result to the capability of the flipped learning strategy to expand students' intellectual abilities in reading comprehension.

7. Recommendations

In light of the study results, the following recommendations are suggested:

1. University instructors are advised to use the flipped classroom strategy in teaching reading comprehension to improve different reading skills.
2. Applying the Flipped Learning Strategy to teaching other subjects in other university specializations.
3. Training workshops on flipped classrooms should be implemented for English language instructors.

4. Other studies should be conducted to use the effect of flipped reading strategy on other language main skills.
5. Other studies should be conducted about obstacles that face the implementation of the flipped classroom strategy and proper ways to solve them.
6. The Ministry of Education should train school teachers to use the flipped classroom strategy in teaching, as it has positive effects on students' reading skills.

Author Contributions

Conceptualization, M.A.A.-S. and A.a.-K.; methodology, M.A.A.-S.; software, A.a.-K.; validation, M.A.A.-S. and A.a.-K.; formal analysis, M.A.A.-S. and A.a.-K.; investigation, M.A.A.-S. and A.a.-K.; resources, M.A.A.-S. and A.a.-K.; data curation, M.A.A.-S.; writing—original draft preparation, M.A.A.-S.; writing—review and editing, A.a.-K.; visualization, A.a.-K.; supervision, M.A.A.-S.; project administration, M.A.A.-S. All authors have read and agreed to the published version of the manuscript.

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Conflicts of Interest

The researchers state that there is no conflict of interest.

References

- [1] Al-Sobhi, S., 2020. Najran University Faculty Members' Use of Artificial Intelligence Applications in Education. *Journal of the Faculty of Education and Educational Sciences - Ain Shams University*. 44(4), 319–368.
- [2] Haddada, A., 2019. Updating educational curricula to keep pace with the requirements of the second digital revolution. *Union of Arab Chambers: Beirut, Lebanon*.
- [3] Zamam, N., Suleiman, S., 2013. The evolution of the concept of technology and its uses in the educational process. *Journal of Humanities and Social Sciences - University of Kasdi Merbah Ouargla*. 11, 163–174.
- [4] Lavidas, K., Alexiou, T., Panagiotidis, P., et al., 2024. Determinants of Humanities and Social Sciences Students' Intentions to Use Artificial Intelligence Applications for Academic Purposes. *Information*. 15(6), 314.
- [5] Irshid, I., 2022. The effectiveness of using the flipped classroom in English language training to develop reading comprehension among tenth-grade female students at Al-Turra Secondary School for Girls in the Ramtha District. *Journal of the Faculty of Education*. 38(1), 88–115.
- [6] Abu Salma, A., 2015. The effectiveness of the flipped classroom in developing the reading skills in the English language among third-grade intermediate female students in Riyadh. *International Journal of Specialized Education*. 5(8), 78–92.
- [7] Al-Nashwan, A., 2016. The effectiveness of using flipped learning in teaching English on developing reading comprehension skills among sixth-grade primary school students in Riyadh. *King Khalid University Journal of Educational Sciences*. 4(1), 170–192.
- [8] Al-Khaza'leh, S., Muqabalam, N., 2021. The effect of podcasts on improving the performance of non-native English language learners in listening and speaking skills [Ph.D. Thesis]. Irbid, Jordan: Yarmouk University.
- [9] Wagner, M., Urhahne, D., 2021. Disentangling the effects of flipped classroom instruction in EFL secondary education. *Learning and Instruction*. 75, 101490. DOI: <https://doi.org/10.1016/j.learninstruc.2021.101490>
- [10] Bristol, T., 2014. Flipping the classroom. *Teaching and Learning*. 9(1), 43–48.
- [11] Al-Omari, B., Muqabala, N., 2020. The effect of the flipped classroom strategy on the performance of tenth-grade students in grammar and morphology [Ph.D. Thesis]. Irbid, Jordan: Yarmouk University.
- [12] Al-Zahrani, A., 2015. From passive to active: The impact of the flipped classroom through social learning platforms on higher education students' creative thinking. *British Journal of Educational Technology*. 46(6), 1133–1148.
- [13] Bergman, A., Sames, S., 2014. Flip your classroom: Reach every student in every class every day. *The Inter-*

- national Society for Technology in Education: Washington, DC, USA.
- [14] Goodwing, B., Miller, K., 2015. Evidence on flipped learning is still coming in educational leadership. *Educational Technology Research and Development*. 12(4), 213–236.
- [15] Alshati, B., Al-Khawaldeh, A., 2023. The Effect of Using the Flipped Learning Strategy on Developing Reading Comprehension Skill in English among 4th Grade Primary Students in Kuwait. *ESI Preprints*. 21, 423–449.
- [16] Al-Ruwaili, W., 2019. The effectiveness of the flipped classroom strategy in developing creative reading skills in English among third-grade intermediate female students in the city of Tabuk. *Journal of Educational and Psychological Sciences*. 3(26), 122–146.
- [17] Aronson, N., Afrstrom, K., 2013. *Flipped Learning in Education*. Flipped Learning Network: New York, NY, USA.
- [18] Al Sowat, H., 2016. An EFL flipped classroom teaching model: Effects on English language higher-order thinking skills, student engagement, and satisfaction. *Journal of Education and Practice*. 7(9), 108–121.
- [19] Abu Saalek, R., 2020. The potential effect of using flipped classrooms on Jordanian EFL eighth-grade students' reading comprehension. *Journal of Al-Quds Open University for Educational and Psychological Research and Studies*. 11(30), 1–10.
- [20] Hasanah, I., Arifani, Y., 2018. The effect of flipped classroom strategy toward ESP students' reading comprehension. *Proceedings of the Borneo International Conference on Education and Social Sciences*; Banjarmasin, Indonesia; 12 Agustus 2018. pp. 2026–2036.
- [21] Randall, D., 2013. Flipping the classroom and instructional technology integration in a college-level information systems spreadsheet course. *Educational Technology Research and Development*. 51(4), 563–580.
- [22] Wiranata, A., Arisanti, K., Hassanah, S., 2023. The Impact of a Flipped Classroom on Reading Comprehension in Students. *Journal of Education and Technology*. 6(4), 446–454.
- [23] Jdaitawi, M., 2019. The Effect of Flipped Classroom on Students' Learning Outcomes. *International Journal of Instruction*. 12(3), 665–680.
- [24] Barrett, K., 2002. Using technology and creative reading activities to increase pleasure reading among high school students [Master's thesis]. Fort Lauderdale, FL, USA: Nova Southeastern University.
- [25] Hamdan, N., McKnight, P., McKnight, K., et al., 2013. *The Flipped Learning Model: white paper based on the literature review titled a review of flipped learning*. Flipped Learning Network: New York, NY, USA. Available from: https://flippedlearning.org/wp-content/uploads/2016/07/WhitePaper_FlippedLearning.pdf
- [26] Bormann, J., 2014. Affordances of flipped learning and its effect on student engagement and achievement [Master's Thesis]. Cedar Falls, IA, USA: University of Northern Iowa.
- [27] Al-Saadoun, I.A., 2016. The impact of using the flipped classroom strategy on student achievement and course satisfaction. *The Specialized International Educational Journal: Dar Semat for Studies and Research*. 5(6), 1–11.
- [28] Ismail, M., 2015. The effectiveness of using flipped learning in geography to develop geographical research skills among secondary school students. *Education and Society Journal of Social Studies*. 75, 173–218.
- [29] Halili, A., Zainuddin, S., 2016. Analysis of previous studies implemented in classroom study during 2013–2015. *Journal of Pendidikan Kimia*. 2(10), 54–78.
- [30] Al Ghazo, A., Taamneh, I., 2017. The Effect of Swain's Push out Hypothesis on Promoting Jordanian Language Learners' Reading Performance. *International Journal of Applied Linguistics and English Literature*, 7(1), 73–85.