Cómo referenciar este artículo / How to reference this article
Almahdawi, A. J., Alqawasmi, A. A., Aburezeq, I. M., Alwaely, S. A., Faqeeh, M. H., Alsalhi, N. R. I. (2024). The Impact of Using Numbered Heads Strategy on Developing Creative Comprehension Skills of Reading among Grade Eighth Students. *Espacio, Tiempo y Educación*, 11(1), pp. 84-94.
doi: http://dx.doi.org/10.14516/ete.11106

The Impact of Using Numbered Heads Strategy on Developing Creative Comprehension Skills of Reading among Grade Eighth Students

Asmaa Jumah Almahdawi
email: asmaa.almahdawi@aau.ac.ae
College of Education, Humanities and Social Sciences Al Ain University, UAE

Abdellateef Abdelhafez Alqawasmi
email: abdellateef.alqawasmi@aau.ac.ae
College of Education, Humanities and Social Sciences Al Ain University, UAE

Ibtehal Mahmoud Aburezeq
email: Ibtehal.Aburezeq@aau.ac.ae
College of Education, Humanities and Social Sciences Al Ain University, UAE

Suad Abdalkareem Alwaely
email: suad.alwaely@aau.ac.ae
College of Education, Humanities and Social Sciences Al Ain University, UAE & Hashemite University, Jordan

Mohammad Hussein Faqeeh
email: mohammad.faqeeh@aau.ac.ae
College of Education, Humanities and Social Sciences Al Ain University, UAE

Najeh Rajeh Ibrahim Alsalhi*
email: nalsalhi@sharjah.ac.ae
College of Arts, Humanities, and Social Sciences, University of Sharjah, Sharjah, UAE

Abstract: This research aimed to investigate the influence of the numbered heads technique on improving creative reading comprehension abilities in 8th grade female students in Jordan. The research utilized a quasi-experimental approach and included a specimen of 84 pupils randomly chosen from Al-Andalus School, part of the Education Directorate of Irbid Governorate, throughout the 1st academic year (2022-2023) semester. The study tool was a test assessing creative reading comprehension abilities. The findings indicated statistically significant variations at the α=0.05 level between the post-test mean summations of the experimental set, which utilized the numbered heads technique, and the controlling set, which employed traditional techniques. The experimental set surpassed the controlling set. In light of these findings, the research advocated for the use of the numbered heads technique in Arabic language instruction.

Keywords: teaching methods; numbered heads; creative comprehension skills of reading; primary education.

Received: 02-03-2024
Accepted: 24-06-2024

1. Introduction

Reading holds a crucial position among language skills, serving as a means to develop thinking, acquire information, and shape attitudes and magnitudes. The creative aspect of reading, representing the latest advancement in this skill, involves a collaborative process between the reader and the writer to generate new meanings. Emphasizing the development of creative comprehension skills of reading allows learners to build connections that enhance understanding and apply their knowledge to real-life situations (Naibaho, 2019).

Active learning emerged as an educational concept in the last decade of the twentieth century. This educational philosophy aims to engage learners by employing higher-order thinking skills in various learning scenarios and activities that require both individual and collaborative work, as well as self-directed learning, to acquire skills, gather information, and form attitudes and magnitudes (Alqawasmi et al., 2023; Rifai, 2012). According to Al-Harir (2019), the use of cooperative learning facilitates and supports students in developing thinking and analytical skills, transforming the teacher's function from the traditional role to a facilitator and facilitator of the students' learning process. To achieve this, understanding creative reading is necessary to develop these skills, which emphasizes the importance of making the most of modern teaching methods (Mahmoud, Rashwan, & Hisham, 2020).

1.1. Concept of Creative Reading

Creative reading can be viewed, according to Albakr (2020), as raising the level of cognitive processes in the learner, so that he becomes a major participant in these processes. He narrows the gaps in the presented text, relies on his personal experiences, and anticipates and links between information. It appears as an interactive process between the text and reader, as the reader learns various skills, such as criticism, issuing judgments, presenting opinions, and solving problems (Mohammad, 2004). Creative reading includes: fluency, which includes building various ideas, flexibility, which means diversity of ideas, and originality, which is concerned with unusual ideas (Jawah, 2014; Mohammad, 2004; Saeed, 2014).

According to Ali (2022), creative reading involves facilitating the memorization of information so that it becomes a real part of the reader's mind. It allows the reader to reshape the material and analyze it to generate new ideas (Cone, 1994). To reach untraditional ideas or solutions, the reader needs to possess performance, cognitive, and linguistic skills that are stimulated by active learning processes, enabling learners to engage in higher-order thinking to analyze what they learn (Ramadan, 2018).

The numbered heads strategy is one of the strategies that enables students to engage in thinking, dialogue, positive interdependence, and individual accountability within sets of six students, where each student has own responsibility for the success of their set and practices individual learning (Kagan & Kagan, 2009). The importance of the numbered heads strategy lies in its ability to help eliminate negative behaviors such as selfishness and unhealthy competition. It also works on connecting individual and collective growth, developing analytical skills, problem-solving abilities, maintaining order, cultivating self-discipline, and forming positive attitudes towards learning (Al-Rantisi & Al-Masri, 2021; Alsalhi et al., 2021). This strategy falls under the cooperative learning models, where its steps involve the teacher assigning a number to each student in the set, explaining the educational task utilizing various teaching aids. The teacher then

poses a question related to the lesson content and asks each set to study the question, search for the optimal answer, and discuss it actively and positively to ensure that each member of the set has a good understanding and possesses that answer. Afterwards, the teacher requests a specific number, and whoever holds that number in the various sets stands up and prepares to give the answer representing their set (Saadeh, 2008).

Kagan and Kagan (2009) divided the steps of the strategy as follows: The instructor divides the pupils into sets, each including six individuals. Every member of the sets is assigned a number from 1 to 6, or according to the number of individuals in the set. The students then discuss verbally or agree on the answer. The teacher randomly calls out the number 4 utilizing a dice or any random method. The question is then posed, and the student with the number 4 in each set provides the answer for their set. If the student's answer differs from the answers of other sets, the teacher explains and clarifies the reason. The role of the teacher involves planning, preparation, guidance, motivation, facilitation, and assessment (Mustami & Safitri, 2018). As for the role of the student, it involves practicing silent thinking in response to the question posed by the teacher, gathering information, listening to the ideas of the set, and engaging in discussions (Al-Saaedeh & Al-Fayomi, 2021).

Through the current reality of teaching reading based on field observations conducted by researchers during their supervision of field education, it becomes evident that teachers' focus is still far from achieving the concept of comprehensive reading. In reading classes, teachers do not focus on creative methods that elevate traditional thinking beyond the ideas written in the text, but rather their focus is still on memorization and direct understanding (Hussain & Mahmoud, 2020). Studies have varied that have confirmed this shortcoming that neglects the benefits of creative reading (Abu Shahrour, Maqableh, & Al Omary, 2020; Hussain & Mahmoud, 2020; Salah, 2002).

1.2. Aim of the Study

The current investigation attempts to examine the employing numbered heads the strategy influence on the development of creative comprehension skills of reading.

1.3. Question of the Study

The current investigation aims to answer the following question: Does the variation in the teaching strategy utilized (traditional, numbered heads) affect the creative comprehension skills of reading of 8th grade students in Jordan?

1.4. Significance of Study

The objectives of education have shifted from traditional education that focuses on memorization and retrieval of information to skills of creativity, thinking, and reading between the lines. This is one of the most important characteristics of creative reading, which is likely to play a fundamental role in this shift towards advancing higher levels of thinking. Accordingly, this study contributes to responding to the rapid changes of the era that focus on language as a means of communication that is closely linked to the cognitive processes of the reader (Al-Jubori & Al-Sultani, 2013).

1.5. Study Limitations

The present research utilized a purposive specimen of 8th-grade female students from Al-Andalus School for Girls in Irbid, Jordan. The experiment has been performed

in the 1st academic year (2022-2023) semester. The generalizability of this study's conclusions is contingent upon the degree of resemblance to the experimental settings.

2. Literature Review

Various studies have focused on the numbered heads strategy. They have generally confirmed the superiority of this strategy over traditional methods. In mathematics, the numbered heads strategy outperformed the traditional method in achieving 5th grade mathematics, retaining learning, and developing thinking (Ahmed, 2021). This was confirmed by the study of Abu Shahrour et al. (2020), which illustrated the positive effect of teaching utilizing the numbered heads strategy on the performance of 8th grade students in Jordan in comprehension skills of reading, and the study of Hanoneh (2017) in developing reading skills among 2nd grade students, and the study of Al-Yasri (2016) to explore the effectiveness of teaching utilizing the numbered heads strategy in the achievement of 3rd grade students in history, which illustrated the superiority of the numbered heads strategy. In Indonesia, the study of Naibaho (2019) focused on motivation and its relationship to the numbered heads strategy, as the findings illustrated the superiority of the numbered heads strategy over the traditional method in increasing students' motivation. As for Al-Suliti (2017), he discussed the relationship between active learning and the development of comprehension skills of reading among 4th grade students in Jordan. The findings illustrated the positive effect of active learning on the development of comprehension skills of reading among students.

2.1. Study Terminologies

2.1.1. Creative Reading

It is a cognitive and emotional process that goes beyond recognizing words, understanding the text, and comprehending it. It extends to deepening the reader's understanding, allowing them to discover new relationships between things, facts, and events mentioned in the text. A creative reader can also generate new and diverse ideas and discover various solutions through the information provided in the text (Salah, 2006).

2.2. Numbered Heads Strategy

One of the cooperative learning strategies that involves dividing students into diverse sets, with each set consisting of 4-6 students. Each student is assigned a number. The teacher presents a question or issue for discussion among the students, allowing them the opportunity to discuss and agree within their set on the answer. Then, the teacher randomly selects a number from the numbers assigned to the sets and tasks the student with presenting the answer from their set (Hanoneh, 2017).

Procedurally, it can be defined as a strategy that involves numbering the research specimen: unknown numbers are assigned to the students by the researcher (or the subject teacher) within small sets, ensuring that each student is prone to participate in the lesson and answer the questions posed. When a number is chosen, it includes more than one student from various sets due to the repetition of the same number in all the sets.

2.3. Creative Comprehension Skills of Reading

Creative comprehension skills of reading refer to reading that prompts the reader to engage in diverse cognitive processes to satisfy their psychological needs, with

their behavior involving questioning the deficiencies in the information provided in the text, drawing on their experiences, making predictions, generating relationships. It is an interactive and conscious process through which the reader gains self-confidence, the ability to express opinions, criticism, appreciation, and problem-solving. The creative comprehension skills of reading encompass the following: fluency, flexibility, and authenticity (Albakr, 2020; Mohammad, 2004; Saeed, 2014).

3. Methodology

3.1. Study Approach

In line with the nature of the study, which investigates the impact of employing the numbered heads strategy on improving comprehension skills of reading, the research methodology utilized is quasi-experimental. It is considered the appropriate methodology for such studies as it allows for controlling the variables influencing a phenomenon, except for one variable that the researcher manipulates so as to determine and measure its effect on the subject of the study.

3.2. Study Participants

The Al-Andalus School for Girls in Irbid, Jordan was intentionally selected for its evident commitment to provide the necessary amenities. The selection occurred in the 1st academic year (2022-2023) semester. Two 8th grade classes were randomly chosen, with Class A serving as the experimental set for 35 kids and Class B as the controlling set of 32 students. The research specimen consisted of 67 female students. Refer to Table 1.

Table 1: Tallies, Percentages & Distributions of Students per Sets.

Set	Frequency	Percentage
Traditional	41	48.8
Flipped	43	51.2
Total	84	100

3.3. Study Instrument

To achieve the objectives of the study, a list of creative comprehension skills of reading was prepared, consisting of ten skills, through the following steps:

1. Preparation of a list of creative reading skills suitable for 8th grade students.
2. Identification of sources for building the list of skills, including relevant research and studies, Arabic language teaching objectives, modern trends in reading education, and the prescribed reading textbook for the 8th grade.
3. Presentation of the list to a set of experts to assess its validity and suitability for the intended purpose. The list was modified based on their feedback.

A test of creative comprehension skills of reading was developed to measure the proficiency of the 8th grade students (research set) in the skills included in the list. The test was prepared according to the following steps:

1. Identification of test sources: the textbook, previous research and studies, curriculum literature, and teaching methods.

2. Formulation of test items that are aligned with the objectives and free from ambiguity.
3. Development of test instructions.
4. Test content: It included two stories that relate to the students' experiences, followed by a set of questions covering the creative reading skills. The test questions were open-ended to encourage students' expression.
5. Modify the test according to the experts' comments.
6. Conduct a pilot test

3.4. Validity

The study tool in its final form consisted of 18 questions, after consulting the opinions of experts from teachers, supervisors and specialists so as to verify the validity of the study tool.

3.5. Reliability

The research instrument's reliability has been evaluated by administering the test to an independent specimen of 35 students not included in the investigation specimen. The test-retest procedure was utilized with a two-week gap, and the assessment was conducted under comparable settings. The Pearson correlation magnitude between the students' findings on the original test and the retest was determined to be 0.81. The dependability coefficient is deemed appropriate for the study's objectives.

3.6. Scoring Test

The researchers prepared a scoring and grading form that included a list of specific creative reading skills. For each skill, there were three boxes indicating grades based on performance. Excellent performance received three grades, mean performance received two grades, weak performance received one grade, and the absence of the skill received a grade of zero. See Table.2.

Table 2: Skills Distributions.

Skill	Number of Questions	Summation
First	2	Zero to 6
Second	2	Zero to 6
Third	2	Zero to 6
Fourth	1	Zero to 3
Fifth	2	Zero to 6
Sixth	2	Zero to 6
Seventh	2	Zero to 6
Eighth	1	Zero to 3
Ninth	2	Zero to 6
Tenth	2	Zero to 6

The grades obtained by the students were divided into four levels:

Level 1: Grade 0, indicating the absence of skill.

Level 2: Grade 1 if there is one question for the skill, and grades 1-2 if there are two questions for the skill, indicating a weak performance level.

Level 3: Includes grade 2 if there is one question for the skill, and grades 3-4 if there are two questions for the skill, indicating a mean performance level for the skill.

Level 4: Includes grade 3 if there is one question for the skill, and grades 5-6 if there are two questions for the skill, indicating a high-performance level for the skill.

The scale ranges from 0, which is the lowest grade possible, to 54, which is the highest grade possible.

3.7. Equivalence of the Two Sets: Experimental and Controlling on the Pretest

To ensure the equivalence of the two sets, controlling (traditional) and experimental (numbered heads strategy), on the pretest, the means and standard deviations (SD) for comprehension skills of reading were calculated for the students in both sets. The findings are as illustrated in Table 3.

Table 3: The Arithmetic Means and SDs of Students' Summations on the Sets.

Method	f	Mean	Std. Deviation
Traditional	41	22.20	9.33
Numbered heads	43	22.74	9.84

Table 3 indicates that the means of reading comprehension abilities for the controlling set (traditional) vary from those of the experimental set (numbered heads technique). An independent specimens t-test has been utilized to assess the statistical significance of the changes in mean comprehension skills of reading associated with the teaching technique variable before implementation. The findings acquired are illustrated in Table 4.

Table 4: Independent Specimen T-test to Identify the Source of Variations in Sets (Traditional and Numbered heads).

Method	f	Mean	Std. Deviation	t	df	sig
Traditional	9.33	22.20	41	-.262	82	.794
Numbered heads	9.84	22.74	43			

Table 4 demonstrates that no statistically significant variations were seen at a significance level of ($p \leq 0.05$) in the means of reading comprehension abilities according to the instruction technique. The mean summation for the standard teaching approach was 22.20, but the mean summation for the numbered heads strategy was 22.74. The computed statistical magnitude (t) was (-0.262), which is not statistically significant at the 0.05 threshold. This signifies that the experimental and controlling sets have equal reading comprehension abilities before the study's execution.

3.8. Research Variables

Independent Variable: Teaching Method, consisting of two levels (Traditional, Numbered Heads Strategy) Dependent Variable: Comprehension skills of reading, a continuous variable ranging from zero to 54.

3.9. Research Procedures

The researchers followed the following procedures to conduct the research:

1. Reviewing educational literature and relevant studies.
2. Developing the theoretical framework for the study.
3. Selecting the reading texts from the Arabic language curriculum for the 8th grade.
4. Identifying the comprehension skills of reading that should be developed in the 8th grade students.
5. Constructing the research instruments and presenting them to the reviewers.
6. Extracting, presenting, interpreting, and discussing the findings.

4. Findings

To answer the research question, which stated: "Do the creative comprehension skills of reading of 8th grade students differ based on the teaching strategy (Traditional, Numbered Heads)?" an Independent Specimen T-test has been utilized to identify if there were statistically significant variations between the experimental and controlling sets.

The mean summations and SDs of comprehension skills of reading were calculated for the control set (Traditional) and the experimental set (Numbered Heads) on the post-test, as illustrated in Table 5.

Table 5: Mean Summations and SDs of Comprehension Skills of Reading for the Controlling Set (Traditional) and the Experimental Set (Numbered Heads) on the Post-test.

Method	f	Mean	Std. Deviation
Traditional	41	34.78	7.10
Numbered heads	43	39.23	5.71

It has been detected from Table 5 the mean summations of comprehension skills of reading for the controlling set (Traditional) differ from those of the experimental set (Numbered Heads). The mean summation for the controlling set (Traditional) was 34.78 with a SD of 7.10, while the mean summation for the experimental set (Numbered Heads) was 39.23 with a SD of 5.71. To confirm the statistical significance of these variations, an independent specimens t-test was conducted, and the findings obtained are illustrated in Table (6).

Table 6: Independent Specimens t-test for the Mean Summations of Comprehension Skills of Reading for the Controlling Set (Traditional) and the Experimental Set (Numbered Heads).

Method	f	Mean	Std. Deviation	t	df	sig
Traditional	7.10	34.78	41	-3.175	82	.002*
Numbered heads	5.71	39.23	43			

* Statistically significant at level (0.05)

Table 6 clearly indicates statistically significant variations at a significance level of ($p \leq 0.05$) in the mean summations of reading comprehension abilities between the controlling set (Traditional) and the experimental set (Numbered Heads). The mean summation for the Traditional teaching technique was 34.78, with a SD of 7.10, while the mean summation for the Numbered Heads teaching technique was 39.23, with a SD of 5.71. The computed result of the statistical test (t) was -3.175, which is statistically significant at the 0.05 threshold. This signifies statistically significant variations between the experimental and controlling sets, favoring the experimental set.

5. Discussion

The findings of this study reveal statistically significant variations in the mean summations of comprehension skills of reading between the controlling set, taught utilizing traditional methods, and the experimental set, taught utilizing the Numbered Heads strategy. The current investigation findings are consistent with (Abu Shahrour et al., 2020; Al-Suliti, 2017; Hanoneh, 2017) which confirmed the superiority of the numbered heads strategy over traditional methods in terms of students' comprehension skills of reading. This result can be explained by the presence of several influential factors,

as it supports students' interaction and integration through students' implementation of activities themselves, develops students' motivation for active learning (Naibaho, 2019), increases participation in learning and develops thinking (Ahmed, 2021), and works to improve students' comprehension skills of reading (Al-Suliti, 2017).

This strategy includes the three dimensions of creative reading: fluency, flexibility, originality (Jawah, 2014; Mohammad, 2004; Saeed, 2014). It is also increas learning through cooperation and active participation, which develops students' various skills, especially effective communication skills (Ahmed, 2021; Al-Yasri, 2016), and includes developing motivation towards learning (Naibaho, 2019).

In sum, the findings confirm that the numbered heads strategy is a useful and necessary tool in developing creative reading skills. Therefore, it is necessary to encourage teachers to use it and students to progress towards deeper reading to enhance their various cognitive abilities. Teachers should also increase their focus and attention on activities that promote creative reading and continue to ask questions that stimulate critical thinking and higher order thinking skills, by utilizing active learning strategies in reading lessons.

5.1. Recommendations

Depending on the findings of the current study, it is necessary to emphasize the utilization of the numbered heads strategy in teaching various Arabic language skills. It is also necessary to implement training for teachers to improve their skills in utilizing the strategy to improve students' academic achievement, and to draw the attention of decision-makers in the educational process to the importance of utilizing the numbered heads strategy in developing students' skills in creative reading.

References

Abu Shahrour, A., Maqableh, N., & Al Omary, K. (2020). The Effect of Numbered Heads Strategy on the Performance of Eighth Grade Students in Reading Comprehension Skills. *Journal of Educational and Psychology Sciences IUG, Islamic University of Gaza, 28*(6), 965-991. https://search.shamaa.org/fullrecord?ID=306780

Ahmed, A. F. M. (2021). The Effectiveness of the Numbered Heads Strategy in Mathematics Achievement, Learning Retention and Lateral Thinking Development Among Primary Stage Students. *Mağallaẗ Tarbawiyāt Al-Rīyāḍiyaẗ, 24*(10), 150-185. http://search.mandumah.com/Record/1210058

Al-Harir, Z. (2019). The Effect of Using Numbered Heads Strategy on the Achievement of Fifth-Primary Class Female Pupils and Their Attitudes Toward English Language. *College Of Basic Education Researches Journal, 16*(1), 3025-3046. https://iasj.net/iasj/article/184577

Al-Jubori, I. J., & Al-Sultani, H. (2013). *Curricula and Methods of Arabic Language Teaching*. Amman, Jordan: Dar Al-Radwan for Publication and Distribution.

Al-Rantisi, M. M., & Al-Masri, D. (2021). The Impact of Using Numbered Heads Strategy in Developing Analysis of Literary Text Skill Among Female Eighth Graders in Khan Younis. *Journal of Educational and Psychology Sciences IUG, Islamic University of Gaza, 29*(3), 146-163. https://doi.org/10.33976/IUGJEPS.29.3/2021/6

Al-Saaedeh, E., & Al-Fayomi, A. (2021). The Effectiveness of Using Numbered Heads Strategy in Developing Citizenship Magnitudes During the Teaching of National Education Curriculum From Teachers' Viewpoint and Their Attitudes Towards It. *Amman Arab University Research Journal, 7*(1), 248-271. http://demo.mandumah.com/Record/1220804

Al-Suliti, F. (2017). The Effect of the Active Learning Strategies in Developing Reading Comprehension Skills and Attitude Toward Reading of the Elementary Fourth Grade in Jordan. *Journal of Educational Sciences, 29*(2), 197-221. https://search.emarefa.net/detail/BIM-842954

Al-Yasri, M. (2016). The Activity of Teaching by Using the Numbered Heads Strategy on the Achievement of the Intermediate School Third Year Students in Modern History. *Journal of the College of Basic Education for Educational and Human Sciences, 62*, 362-396. https://search.emarefa.net/detail/BIM-695627

Albakr, F. (2020). Evaluation of First Year Intermediate Students' Performance Level of Creative Reading. *Journal of Humanities and Social Studies, 31*(1435), 17-53. https://imamjournals.org/index.php/jshs/article/view/473

Ali, S. M. (2022). The Effect of Using the Numbered Heads Strategy on the Achievement of Second-Grade Students in the Social Subject and the Development of Their Probing Thinking. *Journal of Human Studies, Samarra University, 87*(2), 1235-1266. https://www.iasj.net/iasj/article/118337

Alqawasmi, A., Alarabi, K., Alsalhi, N., & Althunibat, F. (2023). The Effectiveness of Science Teachers' Use of Scientific Inquiry in Distance Learning During the Spread of the COVID-19 Pandemic in Jordanian Public Schools. *Information Sciences Letters, 12*(1), 185-196. https://doi.org/10.18576/isl/120114

Alsalhi, N. R., Abdelrahman, R., Abdelkader, A. F., Al-Yatim, S. S., Habboush, M., & Al Qawasmi, A. (2021). Impact of Using the Differentiated Instruction (DI) Strategy on Student Achievement in an Intermediate Stage Science Course. *International Journal of Emerging Technologies in Learning (Online), 16*(11), 25-45. https://doi.org/10.3991/ijet.v16i11.22303

Cone, J. K. (1994). Appearing Acts: Creating Readers in a High School English Class. *Harvard Educational Review, 64*(4), 450-474. https://doi.org/10.17763/haer.64.4.jq68276234705471

Hanoneh, A. (2017). *The Impact of Using Numbered Heads Strategy on Developing Some Reading Skills Among 2nd Graders in Gaza* [Unpublished Thesis].

Hussain, S. H., & Mahmoud, L. N. (2020). The Effect of the Explanatory Reading Strategy on Developing Creative Reading Skills for Fifth-grade Primary Students. *Journal of Arts, Literature, Humanities and Social Sciences: JALHSS,* (54), 274-286. https://doi.org/10.33193/JALHSS.54.2020.139

Jawah, W. M. (2014). *The Effectiveness of Using Reciprocal Teaching Strategy in Developing Creative Reading Comprehension Skills Among Secondary School Students* [Unpublished Thesis].

Kagan, S., & Kagan, M. (2009). *Kagan Cooperative Learning*. San Clemente: Kagan Publishing. https://www.kaganonline.com/catalog/cooperative_learning.php

Mahmoud, A. R., Rashwan, A., & Hisham, A. (2020). The Effect of Using Imagination Guided Strategy on Developing Creative Reading Comprehension Skills for Preparatory First-year Students. *Scientific Journal, Assiut University, 36*(8), 143-166. https://doi.org/10.21608/mfes.2020.121555

Mohammad, K. (2004). The Effectiveness of Suggested Teaching Strategies in Developing Some Creative Reading Skills for the Preparatory Stage Students. *Journal of Reading and Knowledge, College of Education, Ain Shams University, 33*, 15-44. https://search.mandumah.com/Record/3944

Mustami, M. K., & Safitri, D. (2018). The Effects of Numbered Heads Together-Assurance Relevance Interest Assessment Satisfaction on Students' Motivation. *International Journal of Instruction, 11*(3), 123-134. https://doi.org/10.12973/iji.2018.1139a

Naibaho, L. (2019). The Effectiveness of Number Head Together Strategy on Improving Students' English Achievement at XYZ School. *International Journal of Research-Granthaalayah, 7*(10), 362-370. http://repository.uki.ac.id/id/eprint/1505

Ramadan, M. (2018). The Effect of Active Learning Strategies on Positive Thinking Among Seventh Grade Students in the Amman Region. *Journal of the College of Basic Education for Educational and Human Sciences, 39*, 665-678. https://search.shamaa.org/fullrecord?ID=127934

Rifai, A. M. (2012). *Active Learning, Concept, Strategies, and Evaluation of Learning Outcomes*. Alexandria: Dar Al Jamia Al Jadeeda. https://www.noor-book.com/en/tag/Active-Learning-concept-strategies-and-evaluation-of-learner-outcomes

Saadeh, J. (2008). *Cooperative Learning: Theories, Applications, and Studies*. Amman: Dar Wael for Publication and Distribution.

Saeed, F. M. (2014). *A Proposed Program Based on the Theory of Brain-based Learning to Develop Creative Reading Comprehension Skills and Productive Mind Habits for First-year Secondary Students* [Unpublished Thesis].

Salah, S. Y. (2002). The Effect of a Story-Based Program on Developing Some Creative Reading Skills Among Primary School Students. *The Egyptian Association for Curricula and Teaching Methods, 81*, 82-125. https://search.mandumah.com/Record/40827

Salah, S. Y. (2006). *Self-Learning and Reading*. Cairo, Egypt: Dar Iqra.