

## Effect of Normal or Blended Funny Discussion on Development of Meta-reading Skills and The Ability to Choose Teaching Method

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**Abstract:** Effect of Normal or Blended Funny Discussion on Development of Meta-reading Skills and The Ability to Choose Teaching Method. **Objectives:** The present research aimed to investigate the effect of using the funny discussion strategy (conventional as compared to the blended discussion strategy) on the development of meta-reading skills and the ability to choose the appropriate teaching method among science teaching students in the faculty of education at Al-Aqsa University in Gaza. **Method:** The researcher followed the experimental method and designed a questionnaire of meta-reading skills and a test of choosing the appropriate teaching method. **Findings:** There were no statistically significant differences between the mean scores of the meta-reading skills of the students of the two experimental groups. However, the students of the two experimental groups outperformed the students of the control group in the ability to choose the teaching method. **Conclusions:** funny discussion strategy can be employed independently or in combination with modern technology, and the strategy of funny discussion is suitable for teaching strategies for the students of the faculty of education.

**Keywords:** strategy of normal funny discussion, the strategy of blended funny discussion, meta-reading skills, choice of the teaching method.

**Abstrak:** Pengaruh Diskusi Lucu Normal atau Blended terhadap Pengembangan Keterampilan Meta-reading dan Kemampuan Memilih Metode Pengajaran. **Tujuan:** Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan strategi diskusi lucu (konvensional dibandingkan dengan strategi diskusi campuran) terhadap pengembangan keterampilan meta-reading dan kemampuan memilih metode pengajaran yang sesuai di antara mahasiswa yang mengajar sains di fakultas pendidikan, Universitas Al-Aqsa di Gaza. **Metode:** Peneliti mengikuti metode eksperimen dan merancang kuesioner keterampilan meta-reading dan tes pemilihan metode pengajaran yang sesuai. **Temuan:** Tidak ada perbedaan yang signifikan secara statistik antara nilai rata-rata keterampilan membaca meta siswa dari dua kelompok eksperimen. Namun, siswa dari dua kelompok eksperimen mengungguli siswa kelompok kontrol dalam kemampuan memilih metode pengajaran. **Kesimpulan:** strategi diskusi lucu dapat digunakan secara mandiri atau dikombinasikan dengan teknologi modern, dan strategi diskusi lucu cocok untuk strategi pengajaran bagi mahasiswa fakultas pendidikan.

**Kata kunci:** strategi diskusi lucu normal, strategi diskusi lucu campuran, keterampilan membaca meta, pemilihan metode pembelajaran.

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## ■ INTRODUCTION

The lecture method is a common method in university teaching. The knowledge of a university lecturer of the discussion strategies and his comprehension of them and their patterns help him to implement them. There is a modern shift to the student of the center of the method, and the interaction with students improves the level of thinking, develops their understanding and awareness of what they teach and provide great opportunities for the student to practice mental processes covering the formulation of hypotheses, analysis, conclusions, and generalization (Yassin, 2008). Some of the educators consider the discussion strategy as one of the active learning strategies, which encourage the students to

participate effectively in the classroom through verbal interaction between students, or between a student and the teacher or between students and the teacher to acquire a set of desired information, skills, and attitudes (Al-Dhafiri, 2015).

In spite of the advantages of the discussion, it still focuses on the mental side of the students and neglects affect, and therefore it is necessary to search for mechanisms to develop it. Among these mechanisms is the attention to the emotional side of the students, through enriching the strategy with joy and fun. This reduces the control of the mind on the heart among humans. Like the ordinary discussion, the funny discussion has multiple patterns.

Type of funny discussion	The aims	Elements	Time in minutes	The fun
Limited discussion	<ul style="list-style-type: none"> <li>- Extract information from ideas.</li> <li>- Correcting alternative perceptions.</li> <li>- Clarifying a vague idea.</li> </ul>	The teacher-student Student-student	3-5	A smile, a simple joke, a joke about an idea from a student, proverb, uncommon analogy
Short discussion	<ul style="list-style-type: none"> <li>-Explain the concept of the teaching method.</li> <li>-Discuss its importance.</li> <li>-Discuss the advantages and disadvantages.</li> </ul>	The teacher-students Student-students	5-15	Role-play, sketch play, an example of reality, an indirect hint to the student, a stinging critique of societal behavior
Intermediate discussion	<ul style="list-style-type: none"> <li>-Comparison between two teaching methods.</li> <li>-Explain steps to implement the method.</li> <li>-Demonstrating a practical example of the method .</li> </ul>	The teacher-students Students-students	15-30	Illustrations-diagrams, Caricature Comics, A Fun Short Story
Long discussion	<ul style="list-style-type: none"> <li>-Explain how to design a method plan for teaching.</li> <li>-The link of the teaching method with different science lessons.</li> <li>-Showing on how to improve teaching by employing new and active teaching methods .</li> </ul>	The teacher-students Students-students	30-60	Group jokes, collective laughter, theatrical performance

Controlled funny discussion	-Enrichment of specific ideas. -Induction of a specific idea from sub-ideas. -Comparison between two ideas.	The teacher-student The teacher-students Student-student Students-students	7-20	Smiles, regular jokes, popular proverbs, monologue, funny analogies
Free funny discussion	-knowledge of two opposing ideas. -Propose solutions to a realistic problem.	The teacher-student The teacher-students Student-student Students-students	7-35	Group jokes, collective laughter, playful, funny electronic story

The researcher suggests seven stages to implement the strategy of funny discussion as follows:

The first stage- The analysis of the course to its elements, and this was according to the following steps: Formulation of learning outcomes to be attained. Listing the methods of teaching. Selection of appropriate teaching methods to teach science subjects. Distribution of teaching methods according to actual lectures. Determining of the elements of each teaching method in terms of its concept, foundations, usefulness, disadvantages, and the role of the teacher, the role of the learner, steps and an illustrative example. Classification of learning aspects: cognitive, psychomotor, affective, and social. And Designing a matrix of course elements.

The second stage- the mixing of the funny discussion in the course activities, according to the following steps: Select the topic of the funny discussion. Define the objectives of the discussion circle. Determine the time of funny discussion. Discussion guidelines. Writing of ideas for a funny discussion. Formulation of funny discussion questions. Organizing questions according to ideas.

The third Stage- Design of episodes of humor, fun, jest, farce, and frolic, this is done through the following steps: Analysis of the study subject to its components. Writing of fun, playful and frolic episodes. linking of the episodes of fun and frolic

with the element of the appropriate subject. Diversification of the episodes of fun and frolic. Preparing a list of fun episodes by discussion style. Predicting of the negative side effects during the introduction of episodes of fun in the discussions. Reviewing of the episodes of the fun constantly and developing renewable alternatives.

The fourth Stage- Prepare of students for funny discussion, and this was done through the following steps: Writing the name of the science teaching method to be discussed on the whiteboard, projector or LCD. Writing ideas to be discussed before students. Explaining a brief summary of the teaching method to be discussed. Clarification of the objectives to students to be achieved from the discussion. Disseminating of the spirit of fun and humor among students. Informing the students about the discussion items before 3-7 days from the next discussion. And Registration of admiration, likes, and providing fast and concise feedback.

The fifth stage- the stage of funny discussion management, this was done through the following steps: The lecturer is a facilitator in the discussion. The lecturer is a good listener in the discussion. The lecturer is a follower up of each student in the discussion, the questioner, the respondent, the listener, and examines the presence of students, their presence and urges them to participate in the discussion. Prompting students about funny discussion and during the funny discussion. Creating

an atmosphere of fun during the discussion. Engaging as many students as possible in the discussion. And Commenting on discussions and providing feedback.

The sixth stage: The evaluation of the funny discussion. This was done through the following steps: What have we learned from today's debate? What do you think about today's lecture? Emphasis on writing in a correct language, while avoiding ridicule or unconstructive criticism, and providing correction and notes cheerfully, joyfully and pleasantly. Diversification of the evaluation between the home activities, the design of five plans, attendance, follow-up, discussions, participation, midterm test, and final testing, and continuity of evaluation throughout the semester. Registering of the marks for each student. Classifying the marks of students. And Discussing each student in his answers.

The seventh stage- Applications and homework to the discussion, through the following steps: Directing students to choose the appropriate homework at the teaching method as a special model plan. Explaining how to apply the selected teaching method. Defining the date of the submission of homework assignments orally, written, and electronically. Receiving of home works and writing feedback on each homework. And Selecting options on each assignment: **Approved, Minor modifications, Dramatic changes.**

6- Discussing students about remarks written on their plans. 7- Registering the mark of each acceptable homework.

Supplying communication tools whether synchronic or non- synchronic is essential in electronic discussions as these are flexible and interactive, which makes them more effective and helps teachers overcome the social and humanitarian gaps (Abed El Attay, 2011).

The electronic discussion is conducted through interaction with online discussion tools by internet, which may be between the teacher and his students or among students to be part of the learning

community and to carry out specific individual and participatory learning tasks (Noubi & Deghedi, 2013). The objectives of the online discussions are to deepen understanding of the subject of the discussion, to develop critical and analytical thinking skills, to analyze the ideas of others, to determine their compatibility and strength, and to share their experiences and ideas with others (Al-Dhafiri, 2015). A study of El- Mabredy and Kholy (2020) indicated that discussions through the use of mobile learning applications are useful in developing the skills of students of the College of Education.

The aim of the interactive funny electronic discussion is the conscious and voluntary integration in understanding scientific knowledge that related to science teaching, increasing student motivation towards learning, reducing abstraction in abstract ideas, and mental and emotional participation of students in explaining and discussion, developing the sense of man and society, upgrading sensitivity, and increasing the mental capacity among students.

The electronic discussions are used to define the educational objectives, to organize the timing of discussions, to send and receive participations, to provide new information to encourage students to study it, to share solutions for educational problems, to ask questions and receive answers, to discuss ideas, to retain participants' contributions for long, and to involve students in various interactions (Noubi & Deghedi, 2013).

The interactive funny electronic discussions are used to simplify the teaching method, to introduce students to learning, to provide realistic examples of teaching methods, to open new horizons of teaching methods applications, to link teaching methods with different science subjects in physics, chemistry, and biology. These make students to eagerly waiting for the subsequent discussions, and help the teachers to keep students' responses until the end of the semester.

Many educators point to the advantages of electronic discussions as follows (1) allowing students to share experiences outside the classroom,

(2) enabling students to participate at any time and from anywhere, (3) students think about issues for discussion, (4) ensuring students' freedom to express opinions, (5) improving students' thinking skills, (6) facilitating building knowledge cumulatively and cooperatively, (7) students master reading, follow-up discussion topics, think collectively, and provide participants with a deeper understanding of the material (Noubi & Deghedi, 2013).

Much scientific research studied the discussion strategy, for example, the study of Abu Fakhr et al. (2006) aimed to reveal the effectiveness of the discussion strategy in developing achievement and attitudes toward creativity in using the strategy of discussion in sociology and the relationship between attainment and attitudes among second-grade students. The study was conducted in the schools of South Giza Governorate in Cairo. The sample consisted of 30 students in the experimental group and 30 students in the control group. The study found that there were statistically significant differences between the means of the control and those of experimental groups in the post-application of the achievement test and the attitudes towards creativity scale in favor of using the discussion strategy and the existence of a significant correlation between achievement and the attitudes towards creativity.

The study of Bani Atta (2017), aimed to identify the impact of an educational program based on the strategies of dialogue and discussion in the development of concepts of intellectual security. The sample consisted of (180) female students of the tenth grade in the schools of Amman. The results showed that the discussion strategy was effective in the development of the concepts of intellectual security. The study of Abed El Attay (2011), aimed to identify the nature of students' participation and analyze it in online discussion forums and to identify their perceptions of its use in supporting the study of the ICT curriculum. The results revealed that the general forum received 59% of online discussions. Participations ranged between adding new topics and responding to topics and posing positive

perceptions of the importance of using discussion forums to develop their knowledge, skills, and attitudes, and support communication and interaction among themselves and develop a spirit of cooperation.

The study of Noubi & Deghedi (2013), aimed to identify the impact of e-discussion (participatory-oriented) in the virtual learning environment on the critical thinking and professional performance of in-service female science teachers in Saudi Arabia. The sample reached (52) female teachers. The performance of the participatory e-discussion group exceeded the professional performance of the students in oriented discussion related to design skills of multimedia science lessons and critical thinking scale.

Al-Dhafiri's study (2015), aimed to identify the impact of the use of the discussion in blended learning on the academic achievement among the students and their satisfaction with the organizational behavior course in the faculty of administrative sciences at Kuwait University. The study was conducted on a sample of 74 female students comprising the experimental group and 52 female students comprising the control group. The discussion in blended learning did not increase achievement compared to traditional learning, and the effectiveness of using the discussion in blended learning in students' satisfaction with the course they had been taught using the discussion in blended learning.

Bilgoon's study (2017), aimed to identify the effectiveness of reciprocal teaching in developing the meta-scientific reading skills and academic achievement in a sample of gifted pupils with varied academic achievement levels enrolled in a science course at the primary educational cycle. The study results showed that there were statistically significant differences between the mean scores of the experimental and the control groups. The differences were in favor of the experimental group members who studied with reciprocal teaching.

Abu Al-Ela and Murad (2017). The effect of the electronic discussion on developing the skills of electronic content production, self-identification among students.

The study of Al Faqi and Misfer (2018) found the effect of electronic discussions on achievement and skills. Zarrouk (2019). Using asynchronous group discussion on the web develop research skills among students. The result of Abu-Ghazal and Atrooz (2019) study is revealed statistically significant differences between the mean scores of student's performance on foreign language reading anxiety scale in favor of the experimental group.

From above, one concludes that the previous studies were interested in discussion and e- discussion, but none of them investigated the funny discussion strategy. Therefore, the researcher intends to investigate and experiment the effect of the funny discussion and the blended funny discussion compared to the ordinary discussion strategy on two dependent variables important for the university students. These are skills of meta-reading and ability of choosing the appropriate teaching method for the lessons and subjects of science among the students of the Education Faculty, who will become teachers of science in future.

The research problem is determined by the following main question: What is the effect of using the (normal /blended) funny discussion strategies on the development of meta-reading skills and the ability to choose the appropriate teaching method among science teaching students? This is divided into the following sub-questions:

1. What is the effect of using the funny discussion strategy in the development of meta-reading skills among science teaching students?
2. What is the effect of using the blended funny discussion strategy on the development of meta-reading skills among science teaching students?

3. What is the effect of using the funny discussion strategy on the development of the ability to choose the appropriate teaching method among science teaching students?
4. What is the effect of using the blended funny discussion strategy on the development of the ability to choose the appropriate teaching method among science teaching students?

### ***Importance of the research***

1. Keeping abreast with international attention to the continuous development of science teaching with effective and new teaching methods, and taking an interest in helping the students of the faculties of education to acquire meta-reading skills and choosing the appropriate teaching method for different science lessons.
2. Attracting the attention of officials and lecturers in the faculties of education to take care of the funny discussion and the blended funny discussion strategies via scientific reading and meta-reading skills and linking them to the characteristics of teaching methods and selecting them while teaching lessons of science.
3. This study may benefit educational researchers in the selection of the test of ability to choose methods of teaching and identify the skills of meta-reading in conducting another scientific research.

### ***Research hypotheses***

1. There is no statistically significant difference between the means scores of students in the post-application of the questionnaire of the meta-reading skills due to the variable of the teaching method. 2- There is no statistically significant difference between the means scores of students in the post-application of the test of the ability to choose the appropriate teaching method due to the variable of the teaching method.

***The limitations of the research***

Employing a funny discussion strategy and a blended funny discussion strategy, six skills of meta-reading skills, and seventeen of teaching methods. A sample of female students enrolled in science teaching strategies2 course at Al-Aqsa University in Gaza City in Palestine. Male learners were excluded because their number was few which did not enable the researcher to make a comparison between male and female students. The current research was implemented during the second semester of the academic year 2017/2018.

Funny discussion is an organized set of steps followed by the university lecturer during the implementation of strategies lecture of science teaching by introducing a new method of teaching to be explained and how to link it to science teaching subjects from textbooks for discussion. It includes raising questions about these subjects while providing an atmosphere of fun and enjoyment during the lecture and raising of jokes, writing of discussion domains with notes on the whiteboard or LCD, with their directing the students to prepare a special teaching plan as an application to the teaching method and writing feedback to each student.

The blended funny discussion strategy is an organized set of steps followed by the university lecturer during the implementation of a lecture on strategies of science teaching by introducing the new method of teaching to be explained and how to link it to science teaching subjects selected from school textbooks for discussion and raising questions about them. This is done while providing fun during the lecture, raising jokes, and writing notes on the whiteboard or LCD. Besides, the students are directed to prepare a special teaching plan as an application to the teaching method. They are also required to write feedback for each student with involving the students into a group of a social media for electronic discussions of the

essence of each lecture by announcing it in advance in social media and answering the questions of students synchronically and non-synchronously and providing examples and exercises on the method of teaching.

Meta reading skills: The student’s awareness of the purpose of reading of the science teaching subjects, identifying of informational content, planning for scientific reading, sensitivity toward the main ideas and sub-ideas, self-monitoring during reading, and evaluation of performance periodically, in terms of the score that the student obtains on special questionnaire.

The ability to choose the teaching method: The skill of the student- teacher to determining the appropriate method of teaching among several other proposed methods commensurate to science lessons and measured by the score which the student gets on the special test designed specifically for this aim.

■ **METHOD**

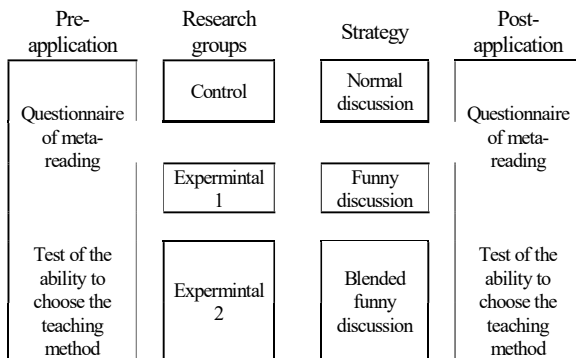
***I. The research approach***

The researcher followed the experimental approach designed by two experimental groups and control group with the pre-posttest. The following figure illustrates the experimental design of the research:

***II. Sample of research***

The research sample was composed of 68 female students enrolled in science teaching strategies 2. They were distributed to three groups: the first group was taught with the normal discussion strategy; the second group was taught by a funny discussion strategy and the third group was taught by blended funny discussion. Female students who were not actively involved in the discussions and did not attend the classes were excluded. The actual sample was composed of (63) students randomly distributed to three groups: control (21) students, funny discussion

(20) students, blended funny discussion (22) students.



**Figure 1.** illustrates the experimental design of the research

**III. The tools**

**A. questionnaire of meta-reading skills:**

The researcher prepared a questionnaire of meta-reading skills, through reading previous studies and theoretical frameworks, and concluded with a list of 42 sub-skills distributed evenly to six main skills. The internal consistency of the questionnaire was confirmed by the calculation of correlation between the total number of skills levels of the questionnaire and the total number of degrees are (0.84, 0.88, 0.82, 0.81, 0.73, 0.89), respectively.

To confirm the reliability of the questionnaire by Cronbach’s alpha, which reached (0.94), and in the split-half coefficient reached (0.88). The researcher prepared a table of specifications for the questionnaire of the Meta reading skills, as shown in table (1):

**Table 1:** Specifications for the questionnaire of meta-reading skills

Skills	Item numbers	Sum	%
Awareness	1, 2, 3, 4, 5, 6, 7	7	16.67
Knowledge	8, 9, 10, 11, 12, 13, 14	7	16.67
Planning	15, 16, 17, 18, 19, 20, 21	7	16.67
Sensitivity	22, 23, 24, 25, 26, 27, 28	7	16.67
Self monitoring	29, 30, 31, 32, 33, 34, 35	7	16.67
Debugging	36, 37, 38, 39, 40, 41, 42	7	16.67
		42	100%

**B. Test of the choice of the appropriate teaching method:**

The researcher has prepared a test of the choice of the appropriate teaching method by following these steps:

1. Determination of the objective of the test: the test aimed at measuring the ability of the student- teachers to choose the appropriate teaching method for science lessons.
2. Formulation of test questions: Pairing questions were used between the two lists, where the first list included the names of teaching methods, and the second list included sections of science lessons to measure the ability to choose the appropriate teaching method for the specific science lesson.
3. Construction of test: The test is composed of (30) questions, and the questions were arranged according to the teaching methods and the selected science lessons.
4. Instructions of test: Test instructions were written at the beginning of questions such as real name, virtual name, and publishing in the group, reading of group publications, commenting on group publications, cumulative average, and explaining how to answer questions.
5. Validity and Reliability of the test: to ensure that the test is valid, it was presented to a group of arbitrators specializing in science teaching methods to express their views on the scientific and linguistic accuracy of the questions, their comprehensiveness, suitability and validity for the application. To verify the reliability, the split-half method was used and reached (0.77), indicating that the test had proper stability.
6. Preparation of the specification table: the researcher prepared a table of specifications to test the choice of the appropriate teaching method, as shown in table (2).



**Table 2:** Test specifications of the appropriate teaching method

Teaching method	Name of science lessons	Total
Map of Multi-Flow	causes of kidney stones disease and its consequences	1
Map of flow	steps to detect protein in egg albumin	1
Analogies	Alternative perceptions of the concept of metabolism. -layers of the earth.	2
The probing questions	-Medication with plants. -the periodic system.	2
Cooperative learning	-chemical calculations. -fish dissection.	2
diagram V map	Hook' Law. -Types of clouds.	2
Brainstorming	The problem of air pollution. -Renewable energy sources.	2
Map of Double Bubble	sexual reproduction and unsexual reproduction	1
Bubble Map	physical characteristics of the substance	1
Bridge map	plants and four seasons	1
The teaching of the scientific concept	-the concept of oxidation. -the concept of light.	2
Role Playing	Chemical elements groups. Flower parts.	2
The teaching of science processes	Air depressions. -Sound Experiments.	2
Problem-solving	-liquidity characteristics. -algae propagation in water tanks.	2
Concept maps	-systems of the human body. -micro-organisms.	2
Meta Cognition	-thermal equilibrium. -Fluids.	2
Analysis maps	-parts of the nervous system.	1
learning Cycle	-atmospheric pressure. -viscosity.	1
		30

7. Grading and Correction method: One point was assigned to each of the test questions, and therefore the maximum test score was 30. It was obtained if the student answered all questions correctly.

**IV. Implementation of the research experiment**

The researcher selected a sample of science teaching students at the third and fourth levels enrolled in science teaching strategies 2 course at the Faculty of Education at Al Aqsa University in Palestine. It has been ascertained that

students in the three groups have studied science teaching strategies 1 which means the basics of science teaching in terms of the concept of science, the nature of science, the characteristics of science, the goals of science, the aims of science teaching, the elements of scientific knowledge and science processes. They have never studied the course of science teaching strategies 2 that is designed for experimentation whether as a repeat or to improve the overall accumulative average. The first and second group students were instructed to participate, discuss and inquire before the start of the experiment, the need to participate, receive

feedback and guidance in addition to attending regular lectures, taking into account the learning of the control group using the conventional.

The researcher has reached a series of observations and conclusions during the experiment, the most important of which are: clear motivation for students to actively participate in funny discussions, the students responded to funny environment, and interacted with jokes by smiles and laughter, handing out typical lesson plans timely, receiving feedback, and benefitting from it.

## ■ RESULTS OF RESEARCH

I. The findings related to the questionnaire of meta-reading skills.

To test the first hypothesis that states; there are no statistically significant differences at level ( $\alpha$ " 0.05) between the students' means in the post application of the questionnaire of meta-reading skills due to the teaching strategy variable: (funny discussion/ blended funny discussion/traditional discussion). The researcher calculated the means and standard deviations of the three groups in table (3), and one-way ANOVA in table (4).

**Table 3.** Means and standard deviations of the questionnaire of meta-reading skills

Group	No.	Mean	SD
Blended funny discussion	22	153.83	15.57
Funny discussion	20	162.88	16.97
Normal discussion	21	145.93	30.49

**Table 4.** Test results of the one-way ANOVA for the comparison of the meta-reading skills between three groups

	Sum of squares	df	Mean squares	F	Sig.
Between groups	2943.77	2	1471.856		
Within groups	29157.88	60	485.965	3.029	0.056
Total	32101.65	62			

Table 4 shows that the calculated f value is less than the indexed f value at the level of (0.05), which indicates the absence of statistically

significant differences between the means of the students of the two experimental groups and that of the control group who learned in the normal discussion strategy. This confirms the validity of the first hypothesis of the research.

This result may be due to the nature of the Meta -reading skills whose manifestations are Meta reading awareness, Meta reading knowledge and strategies, Meta reading planning, Meta reading sensitivity toward the main and sub-ideas, self-monitoring at reading, and debugging periodic treatment of the difficulty of understanding the scientific material read. These need a relatively long time to develop, diversified and integrated training strategies, as well as a funny discussion strategy. This result consistent with Al- Hussan (2015) study that there is lowness and weakness in the practising the standards of employing the metacognitive reading skills in teaching science for the 1st intermediate year female teachers.

This outcome differs from the outcome of the study (Bilgoon, 2017) which showed that there were statistically significant differences between the mean scores of the experimental and the control groups in developing the meta-scientific reading skills. However, this result is different from that of Abed El Attay (2011), which found positive perceptions about the importance of using discussion forums in skills development.

II. The findings related to the test of the ability to choose the appropriate teaching method:

To test the second hypothesis that states; there are no statistically significant differences at the level ( $\alpha$ " 0.05) between the students' means in the post-application test of the ability to choose the appropriate teaching method attributed to the teaching strategy variable: (funny discussion/ blended funny discussion /normal discussion). Means and standard deviations were calculated for the three groups in table (5), the test of one way ANOVA in table (6) and the Scheffe test in table (7).

**Table 5:** Means and standard deviations of the test of the ability to choose the appropriate teaching

Group	no.	Mean	SD
Blended funny discussion	22	24.45	2.87
funny discussion	20	22.55	2.65
normal discussion	21	18.67	4.21

**Table 6:** Test results of the one-way ANOVA for the comparison of the ability to choose the appropriate teaching method between the three groups

	Sum of squares	df	Mean squares	F	sig.
Between groups	371.5	2	185.77		
Within groups	661.1	60	11	16.89	0.00
Total	1032.6	62			

Table (6) indicates that f value is greater than the indexed value of (f) at the significance level (0.0). This indicates there are statistically significant differences between the means of the students of the two experimental groups and those of the control group who learned in the normal discussion method. This denies the validity of the second hypothesis of the research.

**Table 7:** Results of the multiple comparisons Scheffe test between the post means of the test of the ability to choose the appropriate teaching method between the three groups

(i) group	(j) group	mean difference i-j	sig.
blended	discussion	1.9	0.187
	control	5.79	0.0
discussion	blended	-1.9	0.187
	Control	3.88	0.02

Table 7 shows a difference between the mean scores of students in the blended funny discussion strategy and the mean scores of students in the normal discussion strategy in favor the former.

Besides, there is difference between the mean scores of students in the funny discussion strategy group and the mean scores of students in the normal discussion strategy group in favor the former. However, there is no difference between the mean scores of students in the blended funny discussion strategy group and that of students in the funny discussion strategy group.

A pairing between the learning in the classroom during the scheduled time and the free home-based learning, time and circumstances, and the different interaction between student and student, student and lecturer, student and scientific content, student and social multimedia group can cause the excellence of the learning through blended funny discussion. These encourage students to discuss their colleagues, and not being afraid or ashamed to exchange views with colleagues, to brainstorm openly, to develop analytical, comparative and enquiry skills and to express opinions about different teaching methods.

By asking an open question to the students of the blended funny discussion group about the merits of the strategy, they reported the strategy helped them much to understand science content, apply and master scientific material, use these in everyday life and in practical training at school, apply diverse teaching methods, deal with students, understand the expression of students faces, keep information in the mind, solve problems in an orderly manner. In addition, they highlighted the importance of cooperation in discussion, the balance between individual requirements with the requirements the group. They were fully persuaded that teaching science requires special methods. Appreciation of teaching, pleasure in learning, curiosity, respect for the opinions of others, polite discussion, getting correct information, creating a lesson free of boredom and monotony, presenting new information in a thrilling way, equilibrium in dealing with others, raising ideas, considering individual differences, correcting some of the wrong beliefs, reviewing and organizing ideas are other advantages.

The reason for the excellence of the Learning group through a funny discussion may be due to the university student event, its suitability for the course of science teaching strategies and their adoption student, his abilities, participation, thinking and building on his previous experiences while providing conditions of playful and joy during the discussions.

By asking an open question to the students of the funny discussion group about the benefits of the strategy, they answered the following. The strategy is easy, beautiful, fascinating, interesting, and useful in recruitment, training, in scientific and practical life. Furthermore, the strategy is useful in the ethics of dialogue, organization of ideas, development of thinking, preparation of plans suitable for the lesson and subject. It fosters self-confidence and self-reliance, logical thinking, use of diverse teaching methods, free expression, and time management during activities, careful thinking and not judging ideas hastily. Other merits were connecting teaching situations with life and reality, linking between information and conclusions, constructive criticism, rousing high levels of thinking, overcoming anxiety, the ability to apply teaching methods, belief that the student is at the center of the learning process, adapting to the teaching environment, patience and endurance for science and learning, drawing on previous experiences.

This result is consistent with that of Abu Fakhri et al. (2006) study, which found that the group of discussion outperformed the students in the control group in the achievement test. It also agrees with the outcome of Bani Atta's Study (2017), there are statistically significant differences attributable to the strategies of dialogue and discussion. Moreover, it is consistent with Abed El Attay's (2011) which reported positive perceptions about the importance of using discussion forums in knowledge development.

It differs from the Noubi and Deghedi's findings (2013), which showed that the participatory e-discussion group outperformed the members of the electronic discussion group in the professional

performance of the skills of science lesson design. It differs from Al-Dhafiri's result (2015) which found that the use of the discussion in blended e learning did not increase at achievement compared to traditional learning.

## ■ CONCLUSIONS

Funny discussion strategy can be employed independently or in combination with modern technology. Fun is not only suitable for students of pre-university education but also suitable for university students too. Meta reading skills need more time to develop with university students, and need special, diversified and intensive activities not just discussion, funny discussion, or blended funny discussion. The strategy of blended funny discussion is suitable for teaching strategies for the students of the faculty of education. The strategy of funny discussion is suitable for teaching strategies for the students of the faculty of education.

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