



## The Effect of Using Educational Mapping as a Game in Teaching English Language on University Students' Speaking Skills

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### Abstract

The current study aims to explore the effect of using educational mapping as a game in teaching the English language on university students' speaking skills. The participants of the study were 27 master's degree students from Al-Quds Open University. The research questions were: 1. Does using educational mapping as a game in teaching the English language affect university students' speaking skills? 2. How does using educational mapping as a game in teaching the English language affect university students' speaking skills? To answer the research questions, the researchers collected 27 semi-structured written interview forms. In addition, the researchers used the qualitative methodology, which is represented in the study by using the thematic coding and the Gioia approach. The results of the study indicated that using educational mapping in teaching the English language could improve students' speaking psychological domain and develop students' speaking cognitive domain. Consequently, the researchers recommended using educational mapping in teaching the English language to enhance university students' speaking skills.

**Keywords:** Educational Mapping, English Language, University Students, & Speaking Skills.

### Introduction

Using graphic organizers assists learners in organizing, arranging, classifying and discovering connections among various concepts; hence, the content will be shown clearly (Mautone & Mayer, 2007). Kim et al. (2004) defined graphic organizers as visual aids that provide learners with meaningful and logical relationships by connecting their knowledge with upcoming information and knowledge. Marzano et al. (2001) indicated that graphic organizers provide teachers with main tools that aid learners to perform and achieve highly. The organization of graphic organizers simplifies the process of developing learners' critical thinking and problem-solving. Hence, it improves their skills and abilities, and it increases their confidence. It also motivates them to be active learners by fostering the process of communication. In addition, Merkle and Jerfferies (2000) found that using graphic organizers is achieved by the following five steps. First, the teacher

converts the given data that associates concepts and ideas to visual illustrations. Second, the teacher allows learners to be active and participate as they can. Third, the teacher finds connections among their prior, current and upcoming knowledge. Fourth, the lecturer is supposed to use references and indications. Last, the teacher should help learners in processing and coding the knowledge they learn.

One kind of graphic organizer is educational mapping; using educational mapping in teaching has several advantages, and using games in teaching has several benefits; thus, the researcher tried to convert educational mapping into a game to maximize its benefits. Hadfield (2002) stated that a game is a type of activity dominated by rules, directed by a goal, and enriched with an element of enjoyment and fun. In addition, Dessri (2002) found that games are forms of play directed by goals and designed to send a message

through fun and excitement. Thus, they simplify the process of enjoyable and meaningful learning. Hadfield (2002) indicated that games are classified into two kinds. The first kind called competitive games, in which participants or players try to be the winner who achieves the desired aim. The second one is labeled as a cooperative game, in which participants or players work in harmony to reach a common aim. Games are useful educational activities that foster communicative teaching and a learning atmosphere. Kobari et al. (2022) found that using games in teaching positively affected students' motivation and achievement.

## Educational Mapping

One kind of graphic organizer is educational mapping; using educational mapping in teaching has several advantages. For instance, Chin and Norhayati (2010) found that using educational mapping helps learners to collect and organize ideas. Furthermore, Brinkmann (2003) found that educational mapping can boost students' enthusiasm. It aids students correctly in categorizing data. Since educational mapping explains the topic clearly, using it in the classroom can greatly increase students' interest and enthusiasm. Additionally, by offering visual aids and drawings, as well as employing images, links, and colors, it helps learners to learn easily; using educational mapping motivates them to pay attention to its visual demonstrations and participate enthusiastically. Also, it reduces cognitive load and pressure on learners' memory, creating an interactive learning environment (Nesbit & Adesope, 2006).

Educational mapping is an effective learning strategy that helps students reorganize the content in a meaningful way and style (Budd, 2004). Using educational mapping enables teachers to achieve the lesson objectives; it assists teachers in dealing with individual differences, making the process of learning more powerful and effective. Educational Mapping assists learners to actively participate in the class, the software of mapping simplifies the content of the material, leading to great engagement among learners, textbooks, learning environments and teachers. Thus, using educational mapping positively affect student' attention and motivation (Salmon & Perkin, 1998).

Murely (2007) stated that educational mapping has various academic advantages. First, it provides visual aid illustrations that make learners understand things easily. Second, it is considered a fabulous brainstorming tool that simplifies sharing ideas and thoughts. It helps students to freely express their ideas without fear since it fosters students' motivation. Third, it motivates students to play their roles and participate; therefore, it enhances students' productivity. Fourth and last, it assists learners to discover the basic ideas and join them with the minor ideas.

## Scaffolding Strategy

The educational mapping as a game method is based on the scaffolding strategy (Kobari,2018). Scaffolding strategy is the process of offering assistance or guidance from the competent person to the beginner person in a pedagogical setting (Wood & Wood, 1996). The process of scaffolding strategy is shown as providing guidance or assistance for improving one's capabilities by using visual aids, cooperative learning, easy and supportive language, visuals and teacher's assistance (Ovando et al., 2003). Scaffolding can guide the process of learning, and it fosters one's attention and focus toward a particular mission by minimizing educational pressure and distractions (Hmelo-Silver, 2006). The process of scaffolding fosters learners' attention, minimizing

problems and hardships that students may face, and it makes the process of learning accessible and simple. Thus, using it correctly achieves fabulous outcomes (Quintana et al., 2004).

## The Zone of Proximal Development

The term ZPD demonstrates the gap between learners' current and expected levels. The term describes the process of learning and teaching in which lecturers are supposed to assist and guide learners to be self-regulated and independent. (Vygotsky, 1978). The lecturer tries to help students in missions they cannot do independently. Of course, scaffolding enables learners to add what they do not understand or realize what they understand. When the process of scaffolding is done appropriately, it will function as an enabler. Hence, it will develop learners' abilities, skills and performance (Benson, 1997).

## Educational Mapping as a Game

Several studies elaborated the positive impact of using educational mapping as a game in teaching English language. For example, Kobari (2018) indicated that using educational mapping as a game in teaching reading comprehension affected 11<sup>th</sup>-grade students' achievement and attitudes positively. In addition, Kobari et al.(2023a) indicated that using educational mapping as a game in teaching the English language positively affected university students' motivation. Moreover, Kobari et al.(2023b) stated that using educational mapping in teaching the English language positively affected university students' self-efficacy. Furthermore, Kobari et al.(2023c) stressed the importance of using the suggested technological future model of using educational mapping as a game in teaching English language.

However, the current study was conducted to explore the effect of using educational mapping as a game in teaching English language on university students' speaking skills. Thus, the current research aims to answer the following research question: 1. Does using educational mapping as a game in teaching English language affect university students' speaking skills? 2. How does using educational mapping as a game in teaching English language affect university students' speaking skills?

## Methodology

The population of the study was master's degree students who study at Al-Quds Open University. The number of master's degree students at Al-Quds Open University is roughly 800 students in the year 2022/2023. The sample of the students was 27 students who were selected randomly as stratified random sampling.

## Training Program

The slides for the educational mapping were made using the texts from the pre-intermediate English language textbook that is offered at several local universities in Palestine. The book design project was also co-founded by the Erasmus program of the European Union, and the mapping slides were made using data from the book. The mapping slides are additionally divided into four parts. The first part deals with grammar, the second with writing, the third with vocabulary and the fourth with reading comprehension. Eight lectures were given to complete the training program. Every week, a 180-minute lecture was provided to the class. All of the researcher's lectures were attended by the participants. Besides, some lectures were given for the midterm exam and final exams.

### Table1

*Training-program lectures*

The following table shows the training program.

Lecture	content	Lessons
1 <sup>st</sup> lecture (Units one and two)	Grammar	Sentences, Questions Transitive and intransitive verbs Regular and irregular verbs Present Simple and Wh-Questions
2 <sup>nd</sup> lecture (Units three and four)	Grammar	Past Simple Passive voice (Present simple and past simple) imperative
3 <sup>rd</sup> lecture (Units five and six)	Grammar	Present progressive, present perfect comparative adjectives Superlative adjectives
4 <sup>th</sup> lecture (Units one and two)	Reading comprehension and vocabulary	Greetings from around the world, Netiquette Food and Health, what is in your food? Cuisines and Countries, get healthy
5 <sup>th</sup> lecture (Units three and four)	Reading comprehension and vocabulary	Wonders of the world, Jerusalem and Bethlehem full day tour, biomes Fashion ...are you interested? #palestinian Traditional customs: The story of place and memory
6 <sup>th</sup> lecture (Units five and six)	Reading comprehension and vocabulary	Learning and Technology A new Era of Entertainment Technology Palestina got home E-sports
7 <sup>th</sup> lecture (Units one, two and three)	Writing Topics	Capitalization Commas Application and assessment
8 <sup>th</sup> lecture (Units four, five and six)	Writing Topics	Giving Reasons (Because and so) contrasting (But) Application and assessment

### Sample of Educational Mapping as a Game

The following slides demonstrate a sample of educational mapping as a game.



Figure 1: The reading Text

- The reading passage talks about \_\_\_\_\_
- 1)What does a healthy diet contain ?
  - 2)What are the sources of Protein?
  - 3) What are the sources of vitamins ?
  - 4)What are the sources of minerals?
  - 5) What are the sources of healthy fat?
  - 6)What are the sources of carbohydrates?

Figure2: Questions on the Reading Text

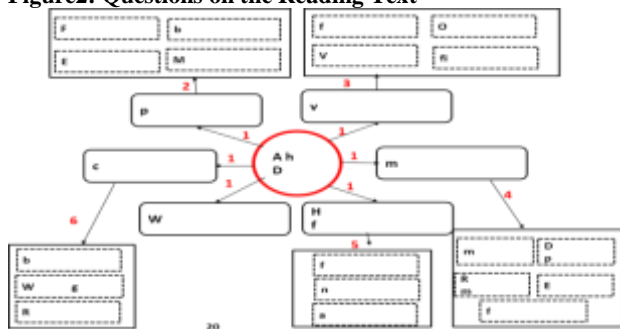


Figure 3: Using Educational Mapping as a Game

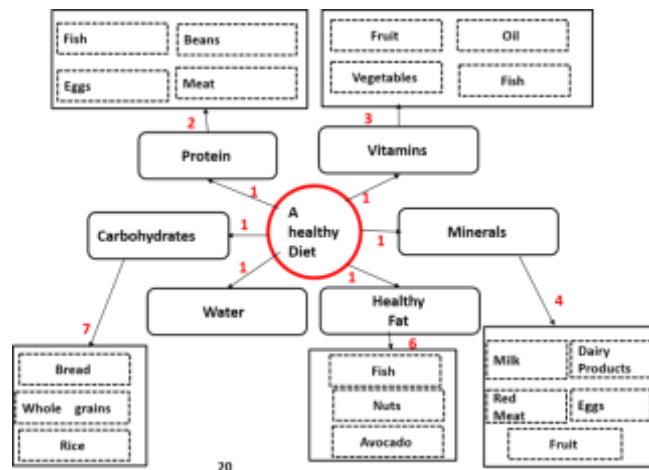


Figure 4: Sample Answer of the Educational Mapping Study procedures

After selecting the sample of the study, a researcher taught the 27 students by using educational mapping as a game. The study was conducted in the second semester of the year 2022/2023. They were taught for nearly three months; that is, the intervention period started on (15/2/2023) and ended on (15/5/ 2023). Then, the participants were given a form of reflection, a written interview paper, that has semi-structured questions which target the research questions.

### Data Collection Tools

The data was collected by using a semi-structured interview form that contains specific written questions which are related to the research questions (Maxwell, 2013). The participants were given 24 hours to answer the questions in detail. Then, the researchers collected the answers of the participants and used thematic coding to code the data and elaborate the themes.

### Data Analysis Tools

According to Dacin et al. (2010), the Gioia approach is suitable to the current study since the results of this study have main and minor themes that are related to each other. For example, the main theme was improving students' psychological speaking domain; it was divided into the following second-order themes: increasing students' confidence to speak and increasing students' motivation to speak. The second main theme was improving students' cognitive speaking domain. It was classified into two minor themes: fostering the students' speaking skills and fostering the students' presentation skills.

Dacin et al. (2010) stressed the importance of supporting the data by using snippets that elaborate the themes and codes. For instance, to support the themes of the study, we used some quotations. That is, we supported the theme of increasing students' confidence to speak with the quotation: "This educational method is new, this helped me to gain my trust in my speaking abilities and speak easily because this way gives us the first letter of the answer."

### Validity and Reliability

Before approving the final themes, the researchers discussed the themes and sub-themes to confirm the validity and reliability of the study. Each researcher worked independently, coded the answers for the semi-structured interview forms, and ensured the quality and reliability of the data analysis. Then, a researcher and 2 external researchers analyzed 10% of the collected written

interview forms. The initial inter-rater reliability for the coders was 66.6 % while the final inter-rater reliability among the coders was 83.33%; the final inter-rater reliability was calculated when the researchers discussed and agreed on the coding results.

## Ethics

Al-Quds Open University's Faculty of Graduate Studies gave the researcher approval to conduct this study. Before gathering the required data, the participants' informed consent was also sought.

## Results

The results of this study indicated that using educational mapping as a game in teaching the English language had positive effects on students' speaking skills; using educational mapping as a game in teaching the English language can positively affect the students' speaking skills in different ways; the positive effects are illustrated below.

### 1. Improving students' speaking psychological domain

#### 1.1. Increasing students' confidence to speak

A number of students stated that using the new method positively affected their confidence while speaking. For example, a student (S.S) wrote: " *Educational mapping as a game increased my confidence while answering questions*". Besides, another student (B.I) wrote: " *It gave the confidence and trust to speak easily in class discussion more effectively without fear*". Moreover, a student (S.Kh) wrote: " *This method helped me to express my opinions with trust and confidence.*" Another student (F.M) stated: " *Educational mapping in teaching us English language improves self-confidence to discuss ideas and thoughts*". Another student (L.A) wrote: " *This educational method is new, this helped me to gain my trust in my speaking abilities and speak easily because this way gives us the first letter of the answer*". In addition, another student (S.Sh) wrote: " *It gave me large confidence while reading different texts.*"

#### 1.2. Increasing students' motivation to speak

Many students stated that educational mapping affected their motivation while speaking positively. For example, a student (Y.B) wrote: " *This method was excellent, it motivated me to speak and answer different questions.*" Another student (G.L) wrote: " *Educational mapping method is very motivating teaching method; it did not motivate me only, but it motivated all the students to participate and raise their hand all the time in the lecture.*" Another student (A.S) wrote: " *Using the "Map method as a game" approach motivates me to interact with others in English, encourages me to ask questions, makes me more engaged in lectures, and makes studying English more fun.*"

Another student (G.A) wrote " *This strategy had impact on my motivation and helped me overcome my fears and lack of confidence because the doctor supported us and allowed all pupils to participate constantly. I was very motivated and enthusiastic for the lecture because I was able to actively engage and communicate clearly thanks to the methodology*". Another student (S.A) wrote: " *I really believe that this approach is vital to our practical and scientific lives. This technique has been incredibly helpful to me in comprehending English because it has made learning the language entertaining and has enhanced both my vocabulary and my motivation to do so.*"

### 2. Improving students' speaking cognitive domain

#### 2.1. Fostering the students' speaking skills

Many students said that educational mapping as a game positively fostered their speaking skills. For instance, a student (G.H) wrote: " *The educational mapping improved my speaking skills in a fantastic way, I was not able to speak for 30 seconds before using it, now I can speak more than 5 minutes in English*". In addition, another student (R.Kh) wrote: " *This method is amazing, and it helped me to speak English language more than I got used to; I advise all students to use it to learn because it will help to speak English language in an easy way.... I will use this method to teach my kids speaking English language*". Moreover, another student (A.J) wrote: " *Using this method in learning English language developed my speaking skills in a short period of time, and I will use it when my finish this course to learn English language and practice speaking as I can*". Furthermore, another student (F.A.A) wrote: " *This is the first time in my life I experience a new teaching method that helps me to speak and pronounce words and sentences because it gives the first letters of the answer .... it helped me to speak English language during the lecture all the time, as well as my colleagues.*"

#### 2.2. Fostering the students' presentation skills

Several students indicated that educational mapping as a game positively fostered their presentation skills. For example, a student (J.A) wrote: " *this method was amazing because it helped me to present the lesson in front of my colleagues and speak easily*". In addition, a student (O.B) wrote: " *Educational mapping method increased my presentation skills by guiding me to speak by its arrows and numbers. It enhanced my abilities and skills to speak in front of my doctor and classmates, I like my doctor to use it every lecture*". Moreover, another student (A.B) wrote: " *this method helped me to present the lesson's ideas because everything is clear and it has visual illustrations that make me understand what I am speaking and saying.*"

## Discussion

The results of this study showed that using educational mapping as a game in teaching the English language had positive effects on students' speaking skills; that is, using educational mapping as a game in teaching the English language can positively affect the students' speaking skills in different ways such as improving students' speaking psychological domain and improving students' speaking cognitive domain. The students' speaking psychological domain is represented by increasing students' confidence to speak and increasing students' motivation to speak. On the other hand, improving students' speaking cognitive domain is represented by fostering the students' speaking skills and fostering the students' presentation skills.

The results of the current study came in line with the results of many studies. For example, Murely (2007) stated that educational mapping has various academic advantages. First, it provides visual aid illustrations that make learners understand things easily. Second, it is considered a fabulous brainstorming tool that simplifies sharing ideas and thoughts. It helps students to freely express their ideas without fear since it fosters students' motivation. Third, it motivates students to play their roles and participate; therefore, it enhances students' productivity. Fourth and last, it assists learners to discover the basic ideas and join them with the minor ideas. In addition, Salmon and Perkins (1998) indicated that using educational mapping enables teachers to achieve the lesson objectives; it assists teachers in dealing with individual differences, making the process of learning more powerful and effective. Educational mapping assists learners to actively participate in the

class, the software of mapping simplifies the content of the material, leading to great engagement among learners, textbooks, learning environments and teachers. Thus, using educational mapping positively affects students' attention and motivation. Besides, Kobari et al. (2023a) stated that using educational mapping as a game positively affected students' motivation.

The researchers think that educational mapping was introduced as an interactive game to the students. As a result, it caught their attention and encouraged them to pay attention. They then believed they could understand the topics since the educational mapping slide could demystify the information by highlighting the main and supporting concepts. Students were less anxious, had fewer language-use phobias, and experienced a more enjoyable learning environment when they felt they understood the ideas being discussed.

The results of the current study confirmed the results of several studies. For instance, Nesbit and Adesope(2006) stated that using educational mapping helps learners to learn easily since it motivates them to pay attention to its visual demonstrations and participate enthusiastically. Besides, it reduces cognitive load and pressure on learners' memory, creating an interactive learning environment. Moreover, Budd (2004) indicated that educational mapping is an effective learning strategy that helps students reorganize the content in a meaningful way and style. In addition, Chin (2010) found that using educational mapping helps learners to collect and organize ideas. Besides, Koabri et al. (2023b) stated that using educational mapping as a game in teaching the English language positively affected university students' self-efficacy.

Hence, the researchers believe that the educational method helped the students to understand the lecture's content by assisting them in acquiring the minor and basic concepts. This helped students overcome their anxiety about learning a foreign language and fostered an engaging and joyful learning environment. Since they realized they could play their roles with ease, it therefore boosted their sense of self-efficacy and confidence in their skills. The researchers think that this educational method enhanced students' competencies in a variety of ways since it allowed them to participate and express their ideas. Consequently, it encouraged them to speak the English language and fostered their speaking skills.

## Conclusion

The current study recommends professors, curriculum designers, and lecturers utilize educational mapping as a game while teaching the English language to university students to improve their speaking skills. The researchers believe that turning educational mapping into a game could grab students' interest and keep them focused. This method made it simple for the students to participate and be effective; as a result, it enhanced their communication abilities. Hence, the researchers suggest conducting additional research to determine whether employing educational mapping as a game when teaching other subjects has any positive effects.

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