

Using Image Schemata in Teaching "The Great Gatsby"

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استخدام المخططات الصورية في تدريس (جاتسبي العظيم)

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ملخص البحث

تشمل عينة البحث (٥٤) طالباً في الصف الرابع في جامعة سامراء / كلية التربية / قسم اللغة الانكليزية. يهدف البحث الى معرفة ما اذا كان هناك فرق ذو دلالة احصائية بين تحصيل طلبة المجموعة الضابطة التي درست تقليدياً وتحصيل طلبة المجموعة التجريبية التي درست باستخدام اسلوب المخطط الصوري. تم التحقق من وجود هذا الفرق لصالح المجموعة التجريبية بعد تحليل نتائج الاختبار البعدي للمجموعتين باستخدام برنامج الحزمة الاحصائية للعلوم الاجتماعية.

مقدمة:

إن فلسفة التعليم والتعلم هي رؤية لكيفية تعلم المرء للغة ما حيث توجد هنالك اكثر من رؤية بهذا الخصوص لقد تأسست كل أساليب تعليم اللغة على فهم نظري لماهية اللغة وإمكانات المحتملة لتعلمها وتدرج تحت هذه الرؤى طرائق تدريس متعددة. تتضمن طرائق التدريس النشاطات الصفية والأساليب التي تشتمل على تقديم اللغة بطريقة منظمة مبنية على نهج معين بحيث تقوم هذه الأساليب بمساعدة الطلبة على التعلم بصورة فاعلة.

Abstract

The sample of the study includes 54 seniors in Samarra University/College of Education/English Department .The control group was taught traditionally, and the experimental group was taught by using image schemata technique. Analyzing the results of the post test showed that there is a statistical difference in the students' achievement in favor of the experimental group.

Key words: image schema, schemata, association

1. Introduction

An approach is a perspective on teaching and learning. All language teaching strategy is founded on a theoretical understanding of what language is and how it may be learned. Methods are the ways of teaching something that involve classroom activities or tactics to assist learners learn (Kising, 2011:5).A technique is an overarching strategy for systematic languagepresentation based on a chosen approach (Brown, 2001:14).

1.1 The Problem of the Study

Some teachers judge certain teaching techniques as being ineffective without trying to use them and this may make them underestimate these techniques with no convenient reason.

1.2 The limits of the Study

This study is limited to:

- senior students in English department/College of Education/University of Samarra
- the academic year 2022-2023.

1.3 The Aim of the Study:

The study aims at measuring the effectiveness of using the image schema technique in teaching "The Great Gatsby" as manifested in the students' achievement.

1.4 The Value of the Study:

This study encourages teachers to be daring to implement a variety of techniques before judging them in advance.

2. Theoretical Background

According to Mahfudhah (2011: 19), curriculum is a collection of plans and arrangements for resources, as well as the means utilized as instructions for the execution of learning in order to attain educational goals (Nurfadilla, 2015: 206-207). Pennington (1990:132-151) highlights some important objectives that a teacher must strive for:

- 1- An understanding of the theoretical basis of language acquisition and instruction
- 2- The analytical abilities required for evaluating various educational contexts and classroom situations
- 3- An understanding of alternate teaching methods and the capacity to put them into effect.
- 4- The ability and courage to change your teaching strategies as needed.
- 5- Hands-on experience with various teaching styles.
- 6- In-depth understanding of yourself and your pupils.
- 7- Communication abilities with others.
- 8- Flexibility and readiness to adjust attitudes.

Linguists, cognitive psychologists, and psycholinguists have utilized the notion of schema to better understand how essential aspects impacting understanding interact (Rumelhart, 1978:3). Schema theory simply asserts that all knowledge is arranged into components. Information is held within these units of knowledge, called schemata (plural of schema) (ibid). A schema, then, is a broad description of a conceptual framework for comprehending knowledge—how knowledge is represented and used. This theory holds that schemata reflect knowledge about concepts like as things and their connections with other objects, circumstances, events, sequences of events, actions, and sequences of actions (www.csus.edu). Consider cat as a simple example of your schema. You are undoubtedly familiar with cats in general (meow, four legs, fangs, fur, and tails) and may be familiar with specific breeds such as Ragdoll, Exotic, Maine Coon, Persian, British Shorthair, Devon Rex, Abyssinian, American Shorthair, Scottish Fold, and Sphynx (ibid). Ragdoll (long silky coat, bright blue eyes). Exotic (look like its parent breed, the Persian yet they are more popular). Coon Cat from Maine (large, a mail weighs 20 pounds and all muscle, one of the friendliest cat breeds). Cats are mammals; hence, they are warm-blooded, according to your knowledge. Cats as pets (faithful and tamed) or as a frightening animal (bites, attacks) may be part of your paradigm (ibid). Kant used the term schema a little more than two centuries ago. In reality, it was in 1787 that Kant used a schemata concept that "in many respects appears to be more akin" to the current formulation than even Bartlett's (Rumelhart et al., 1977: 101). While Sir Frederick Bartlett brought the notion of schema to psychological theory in his 1932 book "Remembering," we must give Gestalt psychology historical primacy (AL-Hassan, 1984:78-79). Gestalt is a German term with no exact English counterpart. It is commonly translated as "ordered totality" or "configuration". The term encapsulates the core of the Gestalt reaction to Wilhelm Wundt's structuralism, which argued that perception, thinking, and emotion could be reduced to fundamental feelings. The complaint was principally directed against structuralism's concentration on the sole study of consciousness and mental aspects through introspection (ibid:79). Gestalt psychologists maintained that psychological experience is not composed of static, distinct, and many elements that come and go in time, but rather of an ordered yet dynamic, constantly changing field of events that interact or mutually impact each other. As an organism perceives or reacts to its surroundings, it does so to the entire configuration of forces rather than to individual elements. The properties of the entire field differ from the mere sum of its constituents (Bourne et al., 1979:22). Gestalt psychology is "anti-elementaristic," meaning that sensations, perceptions, pictures, connections, reflexes, and the like are not acknowledged as significant psychological components. To comprehend psychological processes, one must envision a stimulation system in which each change can affect all other sections (ibid). Wulf (1922, translated

1939) conducted a memory experiment for geometric drawings in order to gather information on visual perception. Respondents were asked to create drawings that resembled the images right after exposure, after 24 hours, and after a week. Modifications in the reproduced figure were characterized by Wulf under three criteria, 'leveling', 'sharpening', and 'assimilation'. Leveling denotes that the reproduced figures missed some of the information included in the original figures; sharpening denotes highlighting or exaggerating a prominent feature; and assimilation denotes that the figure was normalized, that is, made to resemble a more recognizable item.

3. LITERATURE REVIEW

3.1 SCHEMA

According to Bartlett (1932: 201), a 'schema' is an active arrangement of previous reactions or experiences that must always be assumed to be acting in every well-adopted organic response. He goes on to suggest that while humans cannot recall many exact elements of an event, they may rebuild them by turning around on (their) own schema. J. Piaget developed an abstract term called a schema or scheme to correspond to our well-known abstract ideas (www.etsu.edu). Schemas, also known as (schemata), are units of understanding that may be classified hierarchically and webbed into intricate interactions with one another (ibid). Image schemas, according to Clausner and Croft (1999:22), are the domains most commonly utilized as a basis for the categorization of human conceptions. "(Schemata)" are generalized notions that underpin things, circumstances, events, sequences of occurrences, actions, and sequences of actions (Rumelhart and Ortony 1977:101). "A schema is frequently assumed to consist of a set of 'slots' or 'terminals' that correspond to items that are typically true or anticipated within the knowledge area under consideration. For example, in the schema for a face, there would be spaces for "eyes, nose, mouth, ears, chin and so on. When all of the slots in a schema are filled, the scheme is said to be instantiated (ibid). The approach is not instantiated by the passive encoding of ambient data. Rather, they are active computational devices that seek for useful information in their surroundings (Rumelhart 1980: 39). Sub-schemata can be contained in the slots of one schema. In a face schema, for example, the slot for an "eye" may include a sub-schema consisting of slots for "pupil, iris, eyelid, and so on". This schema characteristic is commonly referred to as 'embedding'. Although lower level schemata may be buried in higher-level schemata, this process does not go on indefinitely. There are basic feature detectors that do not contain sub-schemata; hence, they are associated with the creation of a schema (Rumelhart and Ortony, 1977:101). Each new experience adds additional knowledge to one's schemata. As old information interacts with fresh information, it becomes part of the stored ones (AL-Hassan, 1992:84). Within the context of cognitive linguistics, image schemas are characterized as widespread organizing structures in human cognition that originate through our physiological and social interactions with the world at a preconceptual level (Lakoff, 1989). In addition to perceiving the surrounding world, image schema is developed from people's daily actions (Evans, 2007:n.p.). According to Cruse (2006: 84), picture schemas are foundational conceptual structures that help to construct more complicated conceptual structures. Image schemata, according to Johnson (1987: 29), work at a level of mental organization that lies between abstract propositional structures on one side and specific concrete pictures on the other. According to Cienk (1997: 3-15), object image schema is a broad construct that includes the more particular Link, Part-Whole, Centre-Periphery, Mass-Count, and Collection image schema.

3.1.1 Structure of Schema

A schema, according to Anderson and Pearson (1984: 42), is abstract in the sense that it summarizes what is known about a wide range of examples that differ in many details. A significant theoretical challenge is determining how much and what kind of knowledge is abstracted and how much stays attached to unique instance knowledge. A schema is organized in that it represents the relationships between its constituent elements. The theoretical challenge is to define the collection of relationships required for a broad knowledge analysis. When a pupil is provided with new knowledge, the student combines, extends, or modifies an existing schema to fit the new information. The new information is processed through three steps of information processing to produce this new scheme: sensory register, short-term memory, and long-term memory (Tolleson, 2018: 7-8). Fresh information from the five senses reaches the sensory register for a few seconds. If it is not used, it decays or is replaced by fresh information. If the information is essential or interesting enough, it is transferred from the sensory register to short-term memory, and if it is repeated or divided into meaningful chunks, it is transferred to long-term memory. The information is preserved in long-term memory's infinite capacity by rote memorization, over learning, or deeper levels of processing such as connecting old schemata to new schemata. The cognitive information-processing model describes this information acquisition process (ibid).

3.2 Association

Hornby (2010: 78) defines association as a concept or a memory inspired by sb/sth; a mental relationship between ideas.

3.3 Skillful Teacher's Properties

Brown quotes Harold B. Allen (1980) practical list of criteria of excellent ESL teachers.

- 1- Competent preparation leading to a TESL degree
- 2- A passion for the English language
- 3- Thinking critically
- 4- A continual desire to improve oneself
- 5- Self-subordination
- 6- Willingness to go the additional mile
- 7- Cultural sensitivity
- 8- Professionalism in the workplace
- 9- A sense of enthusiasm for one's task (Bahasa, 2008: 23).

Lastly, Brown outlines the following criteria of a competent language teacher:

3.3.1 Technical Awareness

- 1- Understands the linguistic systems of English phonology, grammar, and discourse
- 2- Understands the fundamental concepts of language learning and instruction in depth
- 3- Is fluent in speaking, writing, listening, and reading
- 4- Has firsthand knowledge of what it is like to study a foreign language
- 5- Recognizes the intimate relationship between language and culture
- 6- Maintains field knowledge by regular reading and conference/workshop attendance. (ibid).

3.3.2 Educational Abilities

- 1- Has a well-rounded, well-informed approach to language education
- 2- Understands and employs a wide range of strategies
- 3- Effectively prepares and implements lesson plans
- 4- Monitors lessons as they go and makes successful mid-lesson changes
- 5- Successfully recognizes the linguistic requirements of learners
- 6- Provides optimal feedback to students
- 7- Encourages engagement, collaboration, and teamwork in the classroom
- 8- Employs proper classroom management practices
- 9- Has effective and clear presenting skills
- 10- Adapts course content and other auditory, visual, and mechanical assistance creatively
- 11- Creates entirely new materials as necessary
- 12- Creates excellent tests and courses using interactive intrinsically motivated strategies (ibid: 24).

3.3.3 Communal Abilities

- 1- Recognizes cross-cultural distinctions and respects pupils' cultural customs
- 2- Appreciates people, demonstrates passion, warmth, rapport, and suitable humor
- 3- Respects students' ideas and abilities
- 4- Is patient while dealing with learners of lower ability
- 5- Provides challenges to pupils with excellent abilities
- 6- Works amicably and openly with colleagues (fellow teachers)
- 7- Looks for chances to exchange ideas, opinions, and approaches with coworkers (ibid).

3.3.4 Personal Characteristics

- 1- Is well-organized, diligent about meeting obligations, and trustworthy
- 2- Is adaptable when things go wrong
- 3- Keeps an open mind while experimenting with different teaching methods
- 4- Establishes short-term and long-term goals for professional development
- 5- Upholds and demonstrates high ethical and moral values (ibid: 25).

4. Methodology

4.1 The sample

The sample consists of 54 senior students in Samarra University, College of Education, English department. It was randomly divided into two groups, the controls group consists of 26 students, whereas the experimental group consists of 28 students.

4.2 Procedure

The controls group was taught using a standard technique for six weeks. The experimental group was taught using visual schemata technique related with the textbook information for six weeks as follows:

1- Providing students with analyses of the key characters in F. Scott Fitzgerald's novel "The Great Gatsby":

-Daisy Buchanan is materialistic, disloyal, superficial, self-absorbed, egotistical, high-spirited, and charming.

- Tom Buchanan: racial zealot, extremely wealthy, cold-hearted, arrogant, and cruel

- Jake Gatsby: self-made, ambitious, idealistic, and devoted

- Nick Carraway: youthful, beautiful, innocent, mild-mannered, smart, attentive, not unkind, and not self-centered

(Kamel,2021: 41-46).

2- Giving students the following image schemata without reflecting them on the main characters.

Dove: peace and love symbol, loyal, committed, honorable, and peaceful (www.adoveslove.com) Chameleon: possesses the extraordinary ability to shift hues (Russell, 2015:10). A chameleon is someone who alters his/her beliefs, ethics, morals, and conduct to satisfy others or to protect him/herself. This individual frequently exhibits plastic and superficial behavior (<https://pcsintensive.com>). Chimpanzee: violent, unpredictable, territorial, and destructive(www.livesscience.com) Dog: loyal, brave, affectionate, and kind, with patience and intellect (www.mnawf.org.my).

4.3 The Equivalence

The Equivalence between the experimental group and the controlling groupTable (1)Pre-test Group Statistics

Group	No.	Mean	Std. Deviation	T. Test Value	
Experimental	28	12.857	2.29401	Calculated	Tabulated
Controlling	26	12.269	1.89943	0.82012	2.000

As it is shown in table no. (1), there is no significant difference between the experimental group and the controlling group for the calculated t. test value (0.820) is less than the tabulated t-test value (2.000).Table (2)Ravin's_ test Group Statistics

Group	No.	Mean	Std. Deviation	T. Test Value	
Experimental	28	38.785	6.184	Calculated	Tabulated
Controlling	26	39.076	4.906	0.191	2.000

Ravin's Matrices is a non-verbal test used to measure general human intelligence and abstract reasoningAs it is shown in table no. (2), there is no significant difference between the experimental group and the controlling group for the calculated t- test value (0.191) is less than the tabulated t-test value (2.000)Table (3)The father's Scientific Degree Variable Statistics

Gro up	N o.	Prim ary	Interme diate	Prepar atory	Dipl oma	Bach elor	Chi 2		D f	Signific ance Level
							Calcul ated	Tabula ted		
Exp .	28	3	5	8	6	6	1.374	7.815	3	0.05
Co n.	26	2	3	7	9	5				

Group	No.	Primary	Intermediate	Preparatory	Diploma	Bachelor	Chi 2	
							Calculated	Tabulated
Exp.	28	8	8	6	4	2	1.186	7.815
Con.	26	6	6	9	3	2		

* (Diploma + Bachelor) cells were merged in one cell for their expected frequency is less than (5).

4.4 The TestThe test consists of ten items, each one is allotted two and a half scores;the total score is(25).

4.1 Item Analysis

4.1.1 The Difficulty Level of the test items

If the index of the difficulty level of the test item is(85% or above),it is easy,if the index is(51-84%) it is moderate, and it is hard if the index is (50% or below)

(www.Washington.edu).Table (5)The Difficulty Level of The Test Items

Item No.	Difficulty level
1	61%
2	56%
3	61%
4	61%
5	65%
6	61%
7	65%
8	56%
9	56%
10	56%

As it is shown in table no. (5) all the test items are acceptable regarding the difficulty level index of each one of them. The following formula was used to calculate the item difficulty level:

$$\text{Item difficulty} = \frac{\text{Right answers}}{\text{No. of the students}}$$

4.1.2 Item Discrimination

The discrimination index of an item indicates the extent to which the item discriminates between the more able testees and the less able ones.

The students' test papers were divided into two equal groups the higher, and the lower.

The researchers calculated the discrimination power of each test item by using the following formula:

$$\text{Item Discrimination} = \frac{\text{High Correct} - \text{Low Correct}}{\text{Half the No. of Students}}$$

Table (6)The Discrimination Power of the Item

Item No.	Item Discrimination Power
1	0.62
2	0.37
3	0.62
4	0.62
5	0.55
6	0.62
7	0.55
8	0.37
9	0.37
10	0.74

Table (No.6) shows that all the items of the test are acceptable according to Ebel(1972:399)who states that the item whose index of discrimination ranges between(0.30 -0.39) is reasonably good and if it is upper, it is a very good one.

4.1.3 The Tempting Power of the DistractorsA good distractor attracts more pupils from the lower group than the upper one (Gronlund,1976:212).The students answers' analysis revealed that all the distractors are tempting to poor students.4.1.4 The Test Validity:“Validity is the degree to which a test measures what it is supposed to measure “(AL-Juboury,2014:39).To ensure the validity of the test ,the researchers used Pearson coefficient formula to calculate the correlation between each item score and the test score. Then the coefficient was corrected by using Spearman-brown formula. All of the test items proved to have a correlation with the total degree of the test and this correlation has a statistical significance at the level (0.05).Pearson coefficient formula:

$$r = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}} \quad (\text{Pearson's formula})$$

N=the total number of pairs of test items scores and test scores

$\sum$ = summation (sigma)

X = the test items scores

Y = the test scores

$$r_{SB} = \frac{2 r_{ti}}{1 + r_{ti}} \quad (\text{Spearman- Brown's formula})$$

r_{ti} = the corrolation between the test score and test item score

Table (7)

No. of Item	Correction Value
1	0.59
2	0.35
3	0.60
4	0.68
5	0.48
6	0.45
7	0.70
8	0.33
9	0.66
10	0.53

4.1.5 The Test Reliability

To ensure the reliability of the test, the researchers split the questions of the test into two halves and treated one half as the test and the other half as the retest. The formula used for calculating the split-half coefficient was Pearson's correlation coefficient formula, the value is (0.75). Then it was corrected by using Spearman-brown formula, the result is (0.85) which is significant at (0.05) level (Hedges, 1966: 22).

$$r = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}} \quad (\text{Pearson's formula})$$

N=the total number of pairs of test scores and re- test scores

$\sum$ = summation (sigma)

X = the test scores

Y = the re-test scores

$$r_{SB} = \frac{2 r_{hh}}{1 + r_{hh}} \quad (\text{Spearman- Brown's formula})$$

r_{hh} = the corrolation between the two halves of the test

Statistics

Group	No.	Mean	Std. Deviation	T. Test Value		Significance Level
Experimental	28	16.178	5.511	Calculated	Tabulated	0.05
Controlling	26	12.576	6.021	2.295	2.000	

As it is shown in table no. (8) there is a significant difference between the experimental group and the controlling group in favor for the experimental group for the calculated t- test value is bigger than the tabulated t- test value. To verify the effectiveness of the technique of using image schemata, the researcher used Cohen equation which indicates that if the effectiveness value is (0.41 – 0.70) it is judged medium; if it is (0.41) it is judged low and it is judged high if it is more than (0.70), and since the value is (0.598) that means the technique is effective as it is shown in table no. (9). Table (9) The effectiveness value of the image schemata technique on the students' achievement

Experimental Group Mean Score	Controlling Group Mean Score	Controlling Group Std. Deviation	Effectiveness Value
16.178	12.576	6.021	0.598

Suggestions

The following are examples of image schemata that can be used in teaching EFL/ESL materials:

- flower (petals, seeds, leaves, roots)
- sun (hydrogen, helium, carbon, oxygen, nitrogen)
- winter (coldness, snow, rain, hail, frost, icicles, moisture)
- palm tree (stem, leaves, flowers, fruit)

Conclusion

From all that has been mentioned before, we conclude that teachers should be daring enough to implement innovative techniques in teaching EFL/ESL, and they should not be immune to using new ways in teaching just because they are afraid these ways may be ineffective. Moreover, it is worth trying for authentic judgement because how can we as teachers judge unless we try? Teachers need to be open to the 'bandwagon' in teaching but, at the same time they should differentiate between worthy and worthless methods, and they should be aware of what a good teacher is supposed to be. Students are undoubtedly able to think of many schemata that can be used for better understanding if teachers give them the chance to do so.

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- www.washington.edu

Appendix (1)

The Test

Write the number of the sentence and the letter of the most appropriate choice:

- 1-Tom is a- aggressive/b- courageous/ c- patient
- 2-Jake is a- loyal/b- innocent/c- wise
- 3-Nick is a- mild-mannered/b-affectionate/c- courageous
- 4-Daisy is a-high-spirited/b- racial/c-faithful
- 5-The dove resembles..... a- Jake/b- Nick/c- Daisy
- 6-The chameleon resembles a-Jake/b- Tom/c- Daisy
- 7-The dog resembles a- Tom/b- Jake/ c- Nick
- 8-The chimpanzee resembles a-Jake/b- Daisy/c- Tom
- 9-Jake and Nick are a- naïve/b-patient/c- intelligent
- 10-Tom and Daisy are a-ambitious/b- selfish/ c- hard-hearted