

4- اطلاعات مربوط به پایان نامه:

الف- عنوان تحقیق

(1) عنوان به زبان فارسی:

مطالعه تطبیقی شیوه های فعال سازی تصویرسازی ذهنی در آموزش مهارت خواندن زبان انگلیسی

(2) عنوان به زبان انگلیسی:

Comparative Study of Mental Imagery Activation Modalities in EFL reading
Instruction

(3) نوع کار تحقیقاتی: بنیادی نظری کاربردی عملی

(4) تعداد واحد پایان نامه: 6 واحد

ب) پرسش اصلی تحقیق: (مساله تحقیق):

- 1) Do mental imagery activation modalities have any effect on EFL reading instruction?
- 2) In case of having effect, what kind of modalities results in more reading comprehension?

5- بیان مساله اساسی تحقیق به طور کلی (شامل تشریح مسأله و معرفی آن، بیان جنبه های مجهول و مبهم، بیان متغیرهای مربوطه و منظور از تحقیق):

An increased reading and good strategies of such skill could help second language learners boost their reading comprehension ability. Reading skill has not been a freestanding task among Iranian second language learners and various strategies have been employed in order to cope with the problems appeared during reading English texts, books and articles. Teachers could expand their teaching process through new methods and strategies. They needed a few strategies to promote reading ability among their language learners.

Professional teachers focused on mental imagery. Using films, electronic dictionaries and hypermedia, controlled films, pictures, photos, diagrams, even cartoons and summarizing long texts are some examples of modalities or mechanisms of activating imagery. According to (Munsakorn, 2012), mental imagery simply regarded as one type of mnemonics is used to remember association. In fact, new words can also be associated with a particularly vivid personal experience of underlying concept.

According to Amin Tavassoli (2013) presenting pictures in the Pre-reading phase has greater impact on reading comprehension of learners than presenting them during the reading phase.

Using various modalities will help the teachers as well as the students to achieve educational results produced from mental imagery as an independent variable. As Merc (2013) demonstrates, types of visuals or the ways and modalities by which one's mental imagery can be activated in the process of learning can be listed as pictures, cartoons, comic strips, maps, video films, photographs, etc.

As mentioned before, the researcher will study the effect of mental imagery on reading comprehension abilities in English among Iranian second language learners especially those who study at intermediate level. So the task of the researcher is to find the answer for the problem as many researchers like (A.Ashton, 2012, Denis,

1982, etc) stated that mental imagery and its various modalities make students to be successful on reading comprehension abilities.

6- مرور ادبیات و سوابق مربوطه (بیان مختصر پیشینه تحقیقات انجام شده در داخل و خارج کشور پیرامون موضوع تحقیق و نتایج آنها و مرور ادبیات و چارچوب نظری تحقیق):

A number of recent research studies have addressed mental imagery and its impacts on reading comprehension of the learners. These studies insisted on various modalities of the mentioned independent variable in achieving the results in order to solve the second language learner's problems during the reading materials.

According to Rasinski (1985) imagery can play a positive role in aiding reading comprehension. In one study, Guttman, Levin and Pressley(1977) read stories to kindergarten ,second and third-grade children under various conditions .These conditions were sets of pictures that only partially represented the text, instructions to create internal images as the text was read, and a control condition of no image instructions and no pictures. The kindergarten children were able to remember more of the texts presented with the full pictures only. However, as the children increased in age (* dear professor here the words “ increased in age “ is inside the main referenced text and as you know it refers to the ages of the learners who become older.) their ability to use partial pictures and internal images to remember texts also increased relative to the control condition. This tends to support Piaget and Inhelder,s (1969) argument that children's ability to image becomes more sophisticated over time.

In another part of the same article Rasinski (1985) added that Anderson, R. C. and Hidde, J. L. (1971) gave students sentences to rate, half the group by pronounce ability and the other half by imagery evoking value. Later they were asked to recall the verbs and objects of the sentences when presented with the subjects. The group receiving the imagery instructions recalled over three times as many words as the pronounce ability group. They argued that the imagery prompt facilitated learning by causing the subjects to process the sentences in a more meaningful fashion. The more scholars and Scientists studied the student's reaction to reading in a SL situations the more they understood the significant of using mental imagery. They used various aspects of the mental imagery in order to discover the new ways toward understanding the complicated texts especially among SL learners.

According to Amin Tavassoli (2013) it must be born in mind that reading is meaning oriented and in Smith's terms, the reader is not moving from words to meaning but rather is moving from meaning to words. This indicates that thinking about the words , limits the learner's mind and do not let them imagine the meaning, but if one tries to imagine the meaning in his or her mind he or she will focus on the exact meaning of the text.

The lack of applying various strategies and techniques in their development is undeniable. For instance, while visual features can be among the most important characteristics of such materials, their absence in current high school textbooks is evident. Visuals such as pictures, columns, tables, tree diagrams, charts and mind maps can be very helpful in extracting and reorganizing the information in English text books. Moreover, illustrations can be an integral part of English textbooks and its justification is that they make textbooks more tangible and understandable. (Amin Tavassoli, 2013).

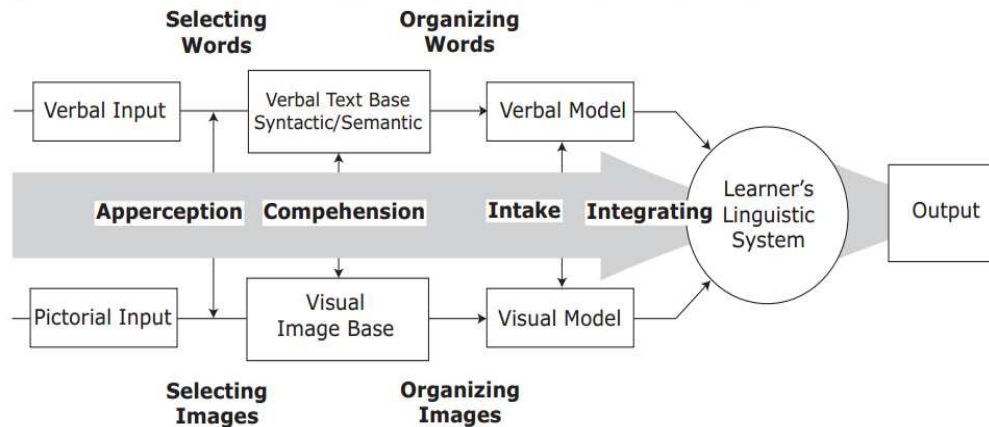
Ericsson and Kintsch (1995) proposed the theory of Long term working memory (LTWM) to address the discrepancy between the WM capacity and the amount of Information that is readily available to a reader during the reading process. LTWM represents highly practiced reading skills and frequently accessed knowledge that requires minimal cognitive effort to be used during reading comprehension. Ericsson and Kintsch (1995) used the term Short Term Working Memory (STWM) to describe Baddeley's WM in order to differentiate it from LTWM. Both STWM and LTWM represent a stable source of stored information that can be accessed reliably during reading comprehension, retrieval is slightly easier in the STWM storage since this represents the most recently activated prior knowledge. The transformation and simulation of information occurs within the STWM. The primary function of LTWM is to facilitate easy retrieval of large amounts of information from long term memory thereby facilitating complex and information heavy processes such as reading comprehension. (A.Ashton, 2012).

Successful reading comprehension depends on the learner's ability to reduce the semantic ambiguity of text and to construct, maintain and update a mental model of the text, to ensure it is coherent and contains information that is relevant to what is being read while it is being read (Smith, 2004).

For clarifying the term mental imagery Munsakorn (2012) demonstrates that mental imagery is one of mnemonic devices considered as the most effective way to retain what people learned (White, 2011) so that the first thing is to be clear in one's own mind: how exactly mental imagery works. This question is indeed more complex than it seems. However, this was answered clearly by Thomas(2011) a cognitive scientist, describing concisely that our brain is designed to encode and interpret complex stimuli such as images, colors, structures, sounds, smells, tastes, touch, positions, emotions and language. We use these stimuli to make sophisticated models of the world in which we live in. Our memories store all of these very effectively Thomas (2001). This biological fact is more underlined by a memory expert showing the technique for remembering information is to code the information using vivid mental images. When the mental images are vivid, they are easy to recall when we need them (White, R, 2010).

Plass & Jones (2005) perceived a connection between Mayer's cognitive theory and the interactionist perspective of SLA theories—the former emphasizes the means to enhance meaningful input through dual presentation of words (aural and/or written) and pictures (static and/or moving), while the latter addresses the importance of comprehensible input (Krashen, S, 1982 , 1985) to SLA. By virtue of the connection, they created an integrated model of SLA with multimedia (See Figure 1) which intertwines ideas from both sides. In such a model, L2 learners process multimodal input by first selecting useful verbal and visual information (apperception) and organizing this information into comprehensible verbal and visual mental representations (comprehension). They then develop the mental representations respectively into verbal and visual models (intake) which eventually become integrated in their linguistic systems (integration), (gXu, 2010).

Figure 1
Integrated Model of SLA with Multimedia (Plass & Jones, 2005, p. 471)



It is obvious that micro level and macro level are two empty dishes in which the readers comprehend the text. gXu (2010) mentioned that interactive models of reading have suggested that readers comprehend text via both bottom-up processing at the micro level and top-down processing at the macro level (e.g., (Kintsch, W., Van Dijk, T, 1978, Rumelhart, D.E, 1977, Swaffar, J, Arens, K, & Byrnes, H, 1991). Readers' bottom-up processing relies heavily on their knowledge of vocabulary. Studies by Laufer (1989) and Liu & Nation (1985) show that readers need to know over 90% of the words in a text to achieve adequate comprehension and to be able to guess the meanings of unknown words from the context. Thus, researchers wondered whether MVA intended for equipping learners with necessary L2 vocabulary knowledge would in turn facilitate overall reading comprehension.

And according to Zuraina (2011) teachers can draw students' attention by integrating pictures into multimedia forms. A study conducted by Yunan (2003) revealed that information aided with pictures and rich learning environment in multimedia instruction could arouse the learners' attention. Such was the result after 30 English and Literature students' achievements were assessed employing immediate recall tests. In the experimental study, two modes of CALL learning were used as the treatments to investigate the effectiveness of vocabulary acquisition (1) printed definitions with pronunciations, and (2) printed definitions with pictures and pronunciations. Both groups of learners were required to read selected passages and consulted the multimedia glossing or marked words in blue to hear their pronunciations as well as to read the English definitions. She concluded that the latter group stood to benefit the learning condition since pictures allowed for greater cognitive mapping and navigating in learning.

In an article Bataineh (2014) studied the effect of using electronic dictionaries and hypermedia annotations on university students' receptive language skills, specifically reading comprehension and vocabulary acquisition.

According to the studies Bataineh (2014) has done about the effects of using electronic dictionaries on reading comprehension abilities of students, the researcher stated that students are sometimes shy and afraid to ask their teachers about the meaning of difficult words. When they are asked simple, direct questions regarding written

material, students may find no difficulty in giving answers. However, when they are asked further questions that call on their reading comprehension skills, students may find it difficult to answer questions because they were unable to determine the meaning of certain words while reading the text. Therefore, the need arises to reduce students' anxiety by using applications such as hypermedia annotation and electronic dictionaries to enhance reading comprehension and vocabulary acquisition. Students can benefit greatly from having the freedom to access information and learn at any time of the day. The writer explains the meaning of hypermedia annotation and considers that hypermedia annotation: A technique that may be used to help read a text by providing meanings for difficult words, thereby enhancing reading comprehension and vocabulary acquisition.

In the research done by Bataineh (2014) the participants of study consisted of two sections of English major students enrolled in the reading . One course at Taibah University in the 2012-2013 academic year. They were divided into two groups. The first group, section 1, was the experimental group that studied reading passages via multimedia (hypermedia annotations, glosses, and electronic bilingual dictionaries). The second group section 2 was the control group in which students studied the same course and texts using paper dictionaries. He added that the researcher designed a test to measure the students' achievement in reading comprehension and vocabulary acquisition before and after start of the experiment. Questions were based on the Reading One textbook and course syllabus. The exam consisted of four units with two parts each, reading comprehension (10 questions) and vocabulary acquisition (10 questions). One point was allocated for each question for a total possible score of 80/80.

The researcher determined the validity and the reliability of the tests and then he identified the variables in his research. Bataineh (2014) clarified that the study contained the following variables: 1. Independent variables: a) Teaching reading and vocabulary traditionally b) Teaching reading and vocabulary via hypermedia annotations, glosses, and electronic dictionaries. 2. Dependent variable: Students' scores reading comprehension and vocabulary acquisition in.

The result of the study was very noticeable. As Bataineh (2014) demonstrated the findings of this study indicated that using multimedia applications has a positive effect on students' ability to learn vocabulary and reading comprehension.

Bataineh(2014) did not determine whether he had used from pictures or images to create any mental images in student's minds in that research. But he pointed a fact that computers can create more proficient readers by offering the choice of various types of glosses to develop better vocabularies, greater background knowledge surrounding the text, and more effective reading strategies (Lyman-Hayer, 1996).

7- اهداف مشخص تحقیق (شامل اهداف علمی، کاربردی، ضرورت‌های خاص انجام تحقیق):

The major purpose of this research study is included in twofold. 1. Whether mental imagery-based instruction is more effective than the conventional instruction of reading ability 2. Since any mental imagery –based teaching is commonly done in the course of an activation process through various channels/modalities, the second aim of this study is to comparatively investigate certain sets of modalities including (pictures and photos versus controlled films and cartoons).

Then, the researcher tries to find the effects of using controlled films and pictures related to the mental imagery as independent variables. So the result of this research study will help the teachers as well as the students in second language environment and in Iranian high schools. The researcher is going to know if the mental imagery and its modalities are effective on improving reading comprehension abilities among second language learners (high school students) in Pars Abad city.

8- فرضیه‌ها: (هر فرضیه به صورت یک جمله خبری نوشته شود).

Research Hypotheses:

H₀: Mental imagery-based instruction is not more significantly effective than conventional in developing reading comprehension ability of EFL learners.

H₀: There is statistically significant difference between the modalities of mental imagery activation ([Pictures and photos versus controlled films and cartoons] in developing reading comprehension ability of EFL learners.

9- متغیرهای تحقیق:

The researcher tries to find the effects of using controlled films and pictures related to the mental imagery as independent variable. Then, mental-imagery based instruction is independent variable and reading comprehension ability is dependent variable.

10- جامعه آماری (توضیح جامعه و حجم آن)

The number of participants that will take part at this study will be over 169 participants out of 300 students on the basis of Morgan matrix. They will be selected to be participated in this research study. The participant's age will be from 17-18 years old and they are studying English language as a second language in schools.

11- نمونه آماری حجم نمونه :

The number of participants that will take part at this study will be over 169 participants out of 300 students on the basis of Morgan matrix. They will be selected to be participated in this research study. As we said the participant's age will be from 17-18 years old and they are studying English language as a second language. The researcher will give the participants pretest in order to identify the homogeneity of the groups. Then the researcher will divide participants into two groups. The first group will be control group. They will be 81 participants. The control group will follow their ordinary classroom activities on reading comprehension. The experimental group will be divided into two groups, each group including 44 participants. We will give to the first experimental group, the treatments including pictures, photos, and we will give the second experimental group treatments including controlled films and cartoons and at the end, the posttest will be given to each of three groups.

12- ابزارهای اندازه گیری و روش نمونه گیری:

The following instrument will be used:

1. A general proficiency test (KET e.g.) to screen a homogeneous sample prior to the experiment
2. Researcher-made syllabus-based reading comprehension test (as a diagnostic test to be used before the instruction)
3. Researcher-made syllabus-based reading comprehension achievement test parallel to the diagnostic test) to be used after the instruction

NOTE: All research-made tests should go through careful piloting, analysis and reliability estimation processes before main administering

13 - در صورت داشتن هدف کاربردی، بیان نام بهره‌وران (سازمان‌ها، صنایع و یا گروه ذینفعان) ذکر شود (به عبارت دیگر محل اجرای مطالعه موردی):

Every research study should be useful, that is, a group or a classification of a society must utilize the results of that study. The researcher in this study tries to help the teachers as well as the high school students. Then, the findings of this study will open new gates in front of high school students as second language learners in order to achieve good results in reading EFL instruction. The pedagogical and theoretical implications in second language environment is additional results, the researcher tries to proceed in this study.

14 - جنبه جدید بودن و نوآوری در تحقیق:

One of the most important differences of this research study that makes it innovative is using the controlled films, the cartoons versus the pictures, and the photos related to mental imagery among participants in the second language situations to see the effects of those activation modalities in the participant's progress on reading instruction ability.

15- روش کار (چگونگی جمع آوری داده ها)
الف. نوع روش تحقیق:

The researcher will give the participants pretest in order to select homogenous sample of the groups. Then the researcher will divide participants into two groups. The first group will be control group. They will be 81 participants. The control group will follow their ordinary classroom activities on reading comprehension. The experimental group will be divided into two groups, each group including 44 participants. We will give to the first experimental group, the treatments including pictures, photos and we will give to the second experimental group treatments including films, cartoons and at the end the posttest will be given to each of three groups.

ب. روش گرد آوری اطلاعات (میدانی، کتابخانه ای و غیره):

The researcher will use pretest in order to select homogenous sample of the groups. The language learners who were participated in this research will be tested on the effects of mental imagery on reading EFL instruction. The control group will experience the usual classroom activities. After giving the treatments to two experimental groups they will be given posttest on mental imagery to see if the treatments have been effective or not.

پ: ابزار گرد آوری اطلاعات (پرسشنامه ، مصاحبه ، مشاهده ، آزمون ، سنجش ، جدول ، نمونه برداری ، تجهیزات آزمایشگاهی ، بانک های اطلاعاتی و شبکه های کامپیوتری و ماهواره ای و غیره):

As it was said before, in this research the research study will have two groups, the control group who will continue their ordinary classroom activities without any extra feedback in reading comprehension, they get just traditional methods, and the other group is experimental group that the researcher will give treatment to them. The researcher will give 20 minutes for each experimental group to teach reading comprehension abilities through pictures and photos, or through using controlled films and cartoons and the researcher will present pretest in order to check any differences between the groups. After giving treatment to the two experimental groups the researcher will give posttest in order to observe the differences between three groups. The researcher will use questionnaires according to (Farhady, 1388) that include a set of carefully selected and ordered questions distributed

among a certain number of subjects. The aim will be finding homogenous sample among all three groups from point view of using mental imagery.

ت: روش تجزیه و تحلیل اطلاعات:

As we said before the major purpose of this research study is included in twofold. 1. Whether mental imagery-based instruction is more effective than the conventional instruction of reading ability 2. Since any mental imagery –based teaching is commonly done in the course of an activation process through various channels/modalities, the second aim of this study is to comparatively investigate certain sets of modalities including (pictures and photos versus controlled films and cartoons). The aim is to determine the differences that will exist among them. The researcher will use from the statistical methods such one- way ANOVA through using SPSS software in order to do popularization the results from sample to statistical population.

16- جدول زمان بندی مراحل انجام دادن تحقیق از زمان تصویب تا دفاع نهایی:

پیش‌بینی زمان بندی فعالیت‌ها و مراحل اجرایی تحقیق و ارائه گزارش پیشرفت کار

ردیف	شرح فعالیت	زمان کل (ماه)	از تاریخ	تا تاریخ
1	مطالعات کتابخانه‌ای			
2	جمع‌آوری اطلاعات			
3	تجزیه و تحلیل داده‌ها			
4	نتیجه‌گیری و نگارش پایان‌نامه			
5	تاریخ دفاع نهایی			
6	طول مدت انجام تحقیق			

17- فهرست ماخذ (فارسی و غیر فارسی) مورد استفاده در پایان نامه به شرح زیر: کتاب ، نام خانوادگی ، نام ، سال نشر ، عنوان کتاب ، مترجم ، محل انتشار ، جلد مقاله ، نام خانوادگی ، نام ، عنوان مقاله ، عنوان نشریه ، سال ، دوره ، شماره ، صفحه

References

- A.Ashton, A. (2012). *Mental Imagery and Reading Comprehension Proficiency in English Second language Learners:An Exploratory Study*.
- Amin Tavassoli, S. J. (2013). THE EFFECT OF PICTORIAL CONTEXTS ON READING COMPREHENSION OF IRANIAN HIGH SCHOOL STUDENTS:COMPARISON BETWEEN PRE-VS. DURING READING ACTIVITIES . *Indian Journal of Fundamental and Applied Life Sciences*, 553.