



# The Effect of The A Brusselian Model on The Achievement of Fifth-Grade Literary Students in Geography and The Development of Their Implicit Intelligence

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**Abstract:** This research aims to investigate the (impact of the Presley model on the academic achievement of fifth-grade literary students in Geography and the development of their tacit intelligence). To achieve this, the researcher adopted an experimental methodology and formulated three null hypotheses. Equivalence was established between the study groups across several variables: chronological age (calculated in months), intelligence test scores, overall fourth-grade literary GPA in Geography, parental educational level, and tacit intelligence scale. The sample consisted of ( 30) fifth-grade literary students from Granada High School for Boys representing the experimental group, and (30) fifth-grade students from Uthman ibn Affan High School for Boys forming the control group. The experimental group was taught using the Presley model, while the control group followed the conventional method. To fulfill the research objectives and hypotheses, two tools were prepared. The first was an achievement test in its final form, comprising 40 objective and essay items. Its face validity was confirmed by presenting it to a panel of experts and specialists. The researcher calculated the ease and discrimination coefficients for its items, and its reliability coefficient was 0.81. The second tool was a tacit intelligence scale consisting of 24 items. The validity and reliability of this scale were confirmed, with a reliability coefficient of 0.80. After selecting the sample members and establishing equivalence between the two groups across several variables, in addition to controlling internal and external validity and preparing lesson plans and research tools, the experiment was implemented. It began on Tuesday, October 3, 2024, and continued until Sunday, December 24, 2024 (thirteen weeks). Upon completion of the experiment, the researcher applied the two research tools to the students of both groups. After collecting and statistically analyzing the data using the t-test for two independent samples, the following results were obtained There was no statistically significant difference at the 0.05 level between the mean achievement scores of the experimental group taught using the Presley model and the mean achievement scores of the control group taught using the conventional method.

**Keywords:** Presley Model, Geography, Implicit Intelligence.

## Introduction

One of the functions of teaching geography is to understand geographical information and use it in students' lives, as it helps them adapt to their environmental conditions and reduces their complexities. It also helps develop their abilities and provide them with thinking skills such as description, expression, prediction, the ability to think critically, and access the required information in facts, concepts, and instructions (Al-Asadi and Al-Masoudi, 2015: 29, 30).

Modern educational trends have emphasized the need to follow teaching methods, strategies, and techniques that seek to give the student control over his learning, and to strive to read and explore knowledge, concepts, and facts, reach conclusions, and exploit personal experiences in the learning process. This can only be achieved by changing the role of the teacher, who was considered the sole source. Information is one of the sources of knowledge, and thus his (the teacher's) role has become that of advisor, expert, guide, and facilitator of education, in addition to being a learner with his students and a motivator of questions as a critic, explainer, and colleague. He discusses with them, accepts their opinions and ideas with open arms, and helps them transfer experience to new situations, using modern models appropriate to educational situations. This enables his students to absorb new facts and principles that challenge and develop their previous cognitive structure, in addition to developing their thinking skills, love of scientific curiosity, and depth in acquiring knowledge (Al-Harathi (2003: 92).

Geography is one of the social sciences, the study of which leads to the achievement of a set of objectives: providing information and ideas about the interaction of humans with their natural and social environment and the mutual relationships between them, which leads to a sense of belonging among students through knowledge of the problems resulting from the relationship between humans and nature, contributing to their solution, developing the student's ability to carefully observe and analyze geographical phenomena, and encouraging students to research, investigate, and collect geographical information (Talafha and Qasim, 2008: 30). Based on the above, we summarize what the research problem included as follows:

Did the Pressley model affect the achievement of fifth-grade literary students in the teaching of geography and the development of their implicit intelligence, which is broader and more useful?

## The Importance of Research

The current era is characterized by rapid technological development in various fields, the Internet, and outer space travel. These developments have a profound impact on societies, their progress, and their prosperity. Social progress is dependent on scientific and technological progress. Today, advanced nations have been able to achieve progress in the field of science and modern technology, as science has greatly changed people's beliefs, attitudes, and incorrect ideas. It has refined their talents, unleashed their energies,

developed their skills and scientific thinking, and made scientific observation and experimentation replace narration and transmission from others (Al-Lami, 2011: 4).

Education is the repository and important pillar of every society. It is an integrated process that helps students interact in life and society, in addition to building the spiritual side and instilling the moral values of that society. If we want a society to develop the talents of its children and employ their experiences and knowledge, it must adopt an education that enables it to advance and promote the scientific and practical reality of that society, because through education, a conscious human being can be prepared And its rehabilitation after society with science and knowledge Zayer and Samaa, 2015 (19)

Geography is one of the important sciences, as geography is not the science that is concerned with describing phenomena with an outward description only, but it has become the specialization that keeps pace with modern scientific development based on analysis, measurement, connection, and the use of advanced strategies and theories. Today, geography has become known as quantitative geography, as it refuses to continue far from the basic concerns of man. By virtue of geography's ability to adapt to different sciences, it is a strong link between the various sciences that have been harnessed all to serve it (Mukhalaf and Hadi 2009 (29)).

Geography is one of the most important social subjects and the only subject that can provide a clear picture of the Earth's features on land, at sea, and in the air. It also explains various natural phenomena, explains the reasons for their occurrence and results, and clarifies how humans are affected by the environment in which they grow up and how they influence it. It also benefits from natural resources and learns about the information in other environments that depict the outside world, the factors surrounding them, and ways to communicate with them mentally and increase awareness of their surroundings. (Al-Masoudi 2012:12).

From the above, the importance of the current research can be highlighted through the following:

1. The importance of modern educational models in raising the efficiency of the educational process for the subject of geography, including the Persley model, which may have a positive impact on the achievement of fifth-grade literary students.
2. Contributing to encouraging geography teachers to use modern models in teaching and increasing their awareness of the importance of using them.
3. The results of the current research can be used to teach geography in the preparatory stage
4. The importance of academic achievement as it is the basis and criterion by which learners' progress is measured.

## Research Objective

### Defining Terms

First: The impact was defined by Sabry (2002) as the ability to achieve the intended goals, to reach the desired results, to use this term in the field of educational treatment of teaching methods, approaches, strategies, and models (Sabry, 2002: 410).

The researchers define it procedurally: It is to know the change that occurred in the achievement of the fifth-grade literary students in the experimental group after teaching them using the Pressley model and the control group after teaching them using the traditional method. It is measured through the research sample's scores on the achievement test and the implicit intelligence test.

The Pressley model was defined by Qatami It is one of the memory aids that contributes to facilitating the processes of memorization, recall, and comprehension. It is also a good method that the student uses with new information and experiences (Qatami 1993: 159).

The researchers define it procedurally It is a set of specific, organized, and logical, graded steps and procedures that include four stages: (paying attention to the material, developing links and relationships, expanding sensory images, and the stage of practicing retrieval and recitation to deliver information, facts, and geographical principles from the natural geography book designated for fifth-grade literary students to the students of the (experimental) group, in order to achieve the objectives of the research.

Achievement was defined by Al-Rimawi as: "A level of achievement, competence, or performance in education, schoolwork, or group work that the learner reaches during the educational process in which a group of students and the teacher participate. This achievement is assessed by the teachers orally or by using various tests for that purpose." (Al-Rimawi, 2017;230).

The researchers define it procedurally The amount of information that fifth-grade literary students in the research sample obtain after teaching them the first three chapters of geography, and it is measured by the total scores they obtain through their answers to the items of the achievement test that the researcher will prepare for this purpose

## Theoretical Background and Previous Studies

### The Concept of the Persley Model

Persley's model is one of the models that has proven effective in learning new experiences. In addition, it is the easiest to memorize, remember, and comprehend. Therefore, it is one of the aids that must be remembered, and it is also a good method for the student to use with new information and experiences (Al-Qatami, 1993: 158).

This model also aims to provide assistance to students to develop the belief that learning is not a mysterious process, and that the ability to use an easy and helpful system for memorization, gratitude, and appreciation can make some students realize at first glance that they can control and identify their mental activities. This realization encourages the practice of critical thinking. This is an important part of intellectual development.

This model relies on memory aids and on linking, organizing, storing, processing, and integrating information into their cognitive structure, and then retrieving it later effectively (Jaber, 1998: 304).

Humans depend on memory in their lives, and it has clear effects on their lives. They depend on it for adaptation, saving a lot of time and effort in processing information that was previously processed and stored. Memory is the means of learning and the method of measuring learning, because learning cannot occur without memory, nor can the extent of change in human behavior be known without memory (Science, 2012 (127)).

Procedures and methods that help the learner: Learner to improve memory. In order to improve students' memory, there are some procedures and methods that the teacher must follow, which are:

1. Increasing the extent of attention to the learning topic.
2. Providing elements of suspense
3. Clarifying the goal of education
4. Employing the senses, especially the visual session
5. Reducing derivatives and correctness
6. Organizing the experiences provided
7. Providing multiple memory aids
8. Encouraging students' effort and participation in learning (Atouk et al., 2003: 363-364)

### **Stages of implementing the Pressley model:**

The first stage: It is based on activities that require the student to focus on the learning material and organize it in a way that helps him remember and memorize it. This means focusing on what we need to remember, such as main ideas and examples, underlining important ideas, writing a separate list of ideas, and then retelling them in the student's own words. This leads to intense concentration and, finally, to contemplation and reflection on the material, balancing ideas, and identifying the relationship between them.

The second stage: After clarifying and evaluating the material, several methods should be used to create links with what has been learned. The second stage introduces the use of methods such as linking words, alternative words (in the case of abstractions), and key words for long and complex paragraphs. The idea is to link the new material with familiar words, images, and ideas, or to form images or words together.

The third stage: Identifying and distinguishing initial connections. It is possible to improve the images by asking students to make connections with more than one sense, then producing sarcastic and dramatically exaggerated connections. In light of this situation, the images can be refined to achieve greater retrieval power.

## **Achievement:**

Academic achievement is of great importance in the life of the student and his family. It does not only mean successive academic stages due to obtaining grades that qualify him for this success, but it has a great impact and importance in his life. It is the path that determines the type of his studies and profession, and thus determines his social standing and the way he views himself.

It gives him a positive feeling, which increases his Factors affecting achievement, Academic achievement is affected by a number of factors, including:

### 1. Family factors:

The more harmonious and balanced the family relationships between the student's family members are, and the more respect and love prevail, the more they directly affect the increase in academic achievement, and vice versa (Duaa, 2014 (37)

### 2. Intelligence

The student's level of intelligence plays an effective role in his academic achievement. The higher his IQ, the higher the student's level of achievement, and the lower the level of negativity toward his achievement.

## **The teacher**

There is no doubt that the teacher's competence and level play a fundamental role in academic achievement. He is the one who presents the scientific material, carefully planning his lessons, and taking into account the sequence and coherence of the topics of his lesson, through regular academic planning and diversity in behavioral objectives and activities, so that the teacher's goal is to provide students with facts, values, principles, and positive behaviors through the curriculum, and that it includes

The lesson aims to achieve behavioral objectives at their three levels: cognitive, skill-based, and affective. It also aims to present knowledge in ways that are clear to most students and to employ it effectively at all times. It aims to take into account student differences by diversifying educational activities that take into account students' levels and motivating students to be disciplined, attentive, and participate in effective ways that make them interact with the teacher and with each other (Miloud109-108:2012).

## **The first axis: Studies that addressed the Presley model and achievement**

### 1. Al-Karim's study (2006)

This study was conducted in Iraq, and aimed to identify the effect of the Goren and Persley model on the learning and study strategies of second-year middle school students and their achievement in history. The researcher adopted the experimental approach, and the study sample consisted of (90) students distributed equally into three groups: two experimental groups and one control group. To achieve the study's objective and test its hypotheses, the researcher prepared a multiple-choice achievement test consisting of (33) five-point items that included (8) fields. He also prepared a post-test

consisting of (60) items, including (40) objective items and (20) essay items. The experiment lasted for a full semester. The researcher used one-way analysis of variance and the Shiite method as a statistical tool to achieve the research objective and reached the following results:

The first experimental group outperformed the second experimental group and the control group in the scale of learning and study strategies as a whole and in each field separately, and in academic achievement. There was a significant and positive relationship between the scale of learning and study strategies and the achievement of the students in the sample.

## 2. Al-Lami's study (2011)

The study was conducted in Iraq and aimed to identify the effect of the Presley and McCarthy model on the achievement of geography among students of the College of Basic Education and their inclination towards the subject. The research sample amounted to (60) male and female students, distributed equally into three groups: two experimental groups and a control group, with (200) male and female students in each group. The researcher statistically compared the three research groups in the variables of intelligence, chronological age calculated in months, parents' academic achievement, geography grades for the previous year, and inclination towards geography. The research tool was a multiple-choice achievement test, the first objective multiple-choice test consisting of (35) questions. The other research tool was a scale of inclination towards geography, which amounted to (50) items. The experiment lasted for (8) weeks. The researcher used one-way analysis of variance and the Scheffe equation. The researcher reached the following results: There is a difference in the validity of the Presley model in achievement, and there is no difference between the three research groups in the inclination towards geography.

### **The second axis: indicators and indications from previous studies**

After the researchers reviewed the previous studies available to them, they chose what they found appropriate and relevant to their mission. They will discuss these studies by reviewing their indicators and implications to determine the extent to which they agree with each other on the one hand and with the current research on the other, according to the following variables:

#### **First: The objective**

The studies of the first axis aimed to identify the effect of the Presley model as an independent variable on a number of dependent variables such as achievement.

#### **Second: Variables of previous studies**

Therefore, the independent and dependent variables in the previous studies varied according to the objectives of each study, and the researcher presented them in Table No. (1), which clarifies this

**Table 1.** Variables of previous studies

Variables of the studies of the first axis: the Presley model and achievement		
Dependent variable	Independent variable	Study and year
Learning strategies scale Achievement test	The effect of the Jordan and Presley model	2006 for Karim
Achievement test and tendency test	The effect of the Presley and McCarthy model	Al-Lami's study (2011)

As for the current research, it will adopt an independent variable, the Presley model, and a dependent variable, which is achievement, according to Experimental design with two groups, experimental and control.

**Third: The sample**

The sample of previous studies varied in the first and second axis in terms of gender, number, academic grade, and academic stage according to the nature of each study and its circumstances. The researcher presented some of them in Table No 2, which clarifies this.

**Table 2.** Data of individuals, samples, previous studies

Data of the studies of the first axis, the Presley model and achievement		
Stage, Number and Type of Groups	Net	Study and year Sample
	90	2006 for Karim
	60	Al-Lami's study (2011)

**Fourth: Tools of Previous Studies**

Results of the tools of previous studies in the first and second axis, due to the nature of the objective of each study and the conditions of its application. The researcher presented them in Table No. (3), which clarifies this.

**Table 3.** Tools of Previous Studies

Tools of the first axis, the Presley model and achievement		
Number of Items	Tool	Study and year
60	Achievement Test	2006 for Karim
50	Achievement Test	Al-Lami's study (2011)

Since the current research will rely on the inclination tool, an achievement test.

**The fourth axis: The extent of benefit from previous studies**

The researcher's previous studies covered several matters. This benefit can be determined by the following points:

1. Benefiting from the results of previous studies as necessary evidence and indicators for conducting the current study.

2. Preparing teaching plans related to the experimental and control research groups
3. Formulating behavioral objectives.

The researcher is informed of the sources related to the current research Using appropriate statistical methods.

### Methodology

In this chapter, the steps and procedures followed by the researcher will be presented, including defining and designing the research methodology, ensuring the interdependence of the two research groups, in addition to mentioning the research requirements and variables, and the tools used in collecting data. The statistical methods relied upon to process and analyze the data will also be explained, in order to reach the desired results, as follows:

### Research Methodology

The researcher followed the experimental method because it is more appropriate to his research procedures and nature, and because this method includes the use of both laboratory and field experimentation, as he studies human and educational phenomena and events, in which the research method has become a high percentage of researchers' uses, in order to address research problems and arrive at the desired interpretations (Jader and Lou Helou 2009, 231).

### Experimental Design

After the experimental design, the research structure or research plan and structure through which it is possible to reach appropriate answers to the research questions and control of variables (Abbas et al. - 2011: 185)

The researchers adopted an appropriate experimental design that does not include two groups, the first experimental according to the Presley model, and the second control group that studied according to the traditional method, as shown in Table 4.

**Table 4.** Experimental Design of the Research

Group	Variable Issues	Dependent Variable	Post-test	
Achievement Test		Experimental Presley Model	Achievement	1
		Method Traditionall	Control	2

Community: It is the total sum of elements that the researcher seeks to generalize to the results related to the problem that was studied (Al-Dulaimi and Saleh - 2014: 73)

The current research community included all fifth-grade literary students studying in schools. Secondary and preparatory schools for government morning studies affiliated with the General Directorate of Education in Salah al-Din Governorate, Sharqat District, for the academic year (2015-2024), Preparation and Training Department. If the researcher obtained their number, which is (431) students distributed over (20) schools.

## Research Sample

The researcher chose the research sample as follows:

After the researcher identified the research community, he chose Granada Preparatory School for Boys and Othman bin Affan Preparatory School for Boys affiliated with the General Directorate of Education in Salah al-Din Governorate, Sharqat Space Education Department, in a intentional manner.

## Equivalence of the two research groups

Before starting to implement the experiment, the researcher was keen to ensure the equivalence of the two research groups (experimental and control) statistically in some variables that might affect the results of the experiment. Some information was obtained through official records and school cards. These variables are:

## Research Requirements

### 1. Determining the Study Subject:

The researcher defined the scientific subject covered by the research, which includes the first three chapters of the geography book.

The natural sciences curriculum to be taught to fifth-grade literary students for the first semester of the academic year (2024-2025)

### 2. Formulating Behavioral Objectives:

The behavioral objective is a description of the student's expected performance upon completion of a specific educational course (title and Muhammad 2011: 67-68)

Behavioral objectives are a description of what the student is expected to do as a result of the educational activities he practices in the lesson (Al-Khaza'leh et al., 2011:40)

After determining the content of the study subject and analyzing it, the researcher formulated a set of objectives (behavioral objectives) according to Bloom's Taxonomy in light of the levels of knowledge, understanding, application, and analysis). The behavioral objectives prepared by the researcher amounted to (142)

### 3. Preparing Instructional Plans:

Curriculum planning is the process of pre-visualizing the educational situation that the teacher prepares to help students achieve a set of pre-determined goals (Al-Hila - 2008: 369)

Therefore, the curriculum planning process facilitates the lesson, gives the teacher self-confidence, and obliges him not to deviate from the topic (Al-Samarani 2013: 159).

One of the requirements for achieving the research objective is preparing a teaching plan in geography according to the Persley model. In order to validate the procedures for using this teaching style, the French teaching plan was presented, along with a teaching plan according to the traditional method with behavioral objectives, to a group of expert judges in geography and teaching methods. The researcher and the specialists entered into discussions in light of the observations they made, and then took their opinions and suggestions into account until the plans were ready for implementation.

### **Research Tool:**

In order to achieve the research objective, the researchers needed a tool, which was an achievement test in geography, as follows:

Achievement Test: An organized method for determining the student's level of acquisition of information and skills in a previously taught subject by basing them on a sample of questions (paragraphs) that represent the content of the subject (Akhbari and Khalida 2010:322). Then, an achievement test is prepared in the first three chapters of the Physical Geography book for the fifth literary grade, according to the content of the subject and the behavioral objectives that were identified in the cognitive domain (Bloom's levels: knowledge, understanding, application, analysis).

1. Determining the objective of selection:

The achievement test aims to measure the achievement of the students of the two research groups in geography within the fifth literary grade, which is scheduled to be taught for the academic year (2024-2025).

2. Determining the content of the subject

The researcher determined the content of chapters (first, second, and third) of the Physical Geography book for the fifth literary grade, which is scheduled to be taught for the academic year (2024-2025)

3. Determining the behavioral objectives:

The researcher identified (40) behavioral presentations according to the levels of the first four in the cognitive field: remembering, understanding, applying, and analyzing, to achieve them through the paragraphs of the achievement test that the researcher will prepare, Appendix No. (9).

### **Preparing the specifications table (optional map):**

The specifications table is a detailed plan that shows the content of the test and links the content of the study material to the educational behavioral objectives, and the relative weight that the teacher gives to each of the different topics, and the relative weights of the cognitive behavioral objectives at their different levels (Al-Absi, 2010 (163)

The researcher prepared a specification table for the achievement test using objective questions of the matching and matching type, multiple-choice questions, and essay questions to formulate the test items that measure the four levels of Bloom's taxonomy in the cognitive domain (comprehension, application, and analysis). For the first question, the researcher chose objective tests of the multiple-choice type to measure the level of recall. The researcher prepared (16) items for this type. As for the second question, the researcher chose objective tests of matching and matching questions to measure the level of understanding, which had (12) items. As for the third question, it was one of the essay tests that require the student to write the answer instead of choosing it, as the researcher placed it.

Measurement of the level of application and the level of analysis, as their number reached (12) items. Thus, the total number of test items became (400) items at different levels and forms, Appendix No. (17).

In light of this, the researcher prepared a specification table for the achievement test.

**Table 5.** Specification table for the test map for the achievement test

100% Total	Analysis 10%	Application 20%	Knowledge 30%	Comprehension 40%	Focus %	Lessons	
16	2	3	5	6	40%	10	Chapter one
14	1	3	4	6	36%	9	Chapter Tow
10	1	2	3	4	24%	6	Chapter Three
40	4	8	12	16	100%	23	Total

**Validity of the test**

Oppenheim defines it as measuring the items' measurement of what they are supposed to measure (Al-Jabri and Sabry, 2013, 214). In order to verify the validity of the test, the researcher relied on two types of validity:

Apparent validity. Apparent validity was confirmed by presenting it to experts, Appendix No. (6). In light of their opinions and suggestions, and taking their recommendations into account, the researcher made minor modifications to some items.

Content validity (content. The researcher confirmed content validity through the specifications table, which Formulating the test instructions. The researchers prepared the instructions for the test before the selection experiment, which included how to answer the test questions, giving an illustrative example of the answer.

The exploratory sample, which is divided into The first exploratory sample: To ensure the clarity of the test paragraphs and answer instructions and to calculate the time required to answer the multiple-choice questions completely, the test was applied in its initial form to a survey sample consisting of (36) students from the fifth literary grade on Thursday, December 12, 2024, at Ahmed Bin Halil Boys Secondary School, affiliated with the Sharqat District Education Department. The researcher personally supervised the application. After the test was completed, it became clear that the instructions were clear, the paragraphs were understandable, and the time taken by the students to answer the test was (40) minutes. The time was calculated by the average choice time using the following law: Average choice time - time of the first student - time of the second student + ..... time of the last student - total students

**The second survey sample (statistical analysis sample)**

In order to statistically analyze the achievement test paragraphs, the researcher applied the test to a second survey sample from the same research community on Monday, 12/23/2024, consisting of (200) students from the fifth literary grade in (Al-Asifa Boys' Preparatory School, Al-Wasiti Boys' Preparatory School, Al-Khasm Boys' Preparatory School, Al-Sharqat Boys' Preparatory School, Al-Nu'man Bin Al-Mundhir Boys' Secondary School, and Al-Shour Boys' Preparatory School. For the purpose of statistical analysis, the researcher applied the achievement test to a sample of (200) students from the fifth literary grade affiliated with Al-Sharqat District Education. The answers were corrected and the grades were arranged in descending order from the highest grade to the lowest. Then, a

percentage of (627) was chosen as the upper group, which amounted to (54) students, and (27%) as the lower group, which amounted to (54) students. This process included revealing the difficulty coefficient, the discriminating power of the paragraphs, their stability, and the effectiveness of the wrong alternatives, as follows:

1. Ease coefficient:

A good test is one in which not every paragraph is equally easy at a high level, such that all individuals can answer it, or it is very difficult, such that everyone fails to answer it. Al-Zuhairi (211) 2017 and Haidar. The ease coefficient was calculated for each period, and it ranges between (0.45 - 0.81), as shown in Appendix No. (11), and thus they are all considered acceptable, as Al-Azzawi (2008) indicates that the test is acceptable if (82) 2008 its ease ranges between (0.20 - 0.80) (Al-Azzawi

2. The discriminating power of the paragraphs

It means the paragraph's ability to distinguish between low-performing and high-performing students in their answers to the paragraph (Al-Rimawi 2017 (186)). The researcher extracted the discriminating power of each paragraph from the achievement test periods by discrimination. Since the test consists of two types: objective and essay, the researcher applied the equation for the discriminating paragraph for the objective paragraphs to the first and second questions, while he applied the equation for the discriminating power of the essay paragraphs to the third question. Its value ranged between (0.33 - 0.65) for all paragraphs. Appendix No. (11) Bad Bari Alam (2014) stated that the paragraph's discrimination coefficient is acceptable if its discriminating power is (0.20%) or more. (Alam 2014 (116) and all paragraphs obtained this percentage or higher, as in Appendix No. (11)

### **The effectiveness of false alternatives**

The effectiveness of the false alternatives refers to the ability of these alternatives to attract the examinees. The column is supposed to be attractive to the examinees, especially those belonging to the lower category. The high alternatives were calculated and it appeared that the alternatives all had negative results, as in Appendix No. (12). This means that the false alternatives were used by a number of students with weak levels at the time, which indicates their effectiveness. Accordingly, all the paragraphs were kept unchanged. Al-Tihan (2013) (244)

### **Reliability of the achievement test:**

To verify the reliability of the test, the researcher used Cronbach's alpha to calculate the reliability, as the reliability coefficient calculated by this equation reached (0.81). This indicates that the test has a good reliability coefficient. Bashir (Al-Nabhan, (2004) indicated that the test is considered good if it has a reliability coefficient of (0.69) or more (Al-Nabhan, 24:2004)

### **The final formula for the achievement test:**

After the researcher completed the statistical procedures for the achievement test, it became ready in its final form for application, consisting of (40) paragraphs distributed over

three questions. The first question consists of (16) objective paragraphs of the multiple choice type, the second question is objective, consisting of (12) paragraphs of the matching and pairing type, and the third question is essay-based, consisting of (12) paragraphs of the essay type with short answers. The objective paragraphs take one or zero points, while the answers in the essay paragraphs take either zero or (3) points, meaning that the lowest score a student can get on the achievement test is) zero, and the highest score is (64).

### **Statistical Methods**

The researcher used statistical methods using the statistical program (SPSS) (26) to complete the research procedures, analyze the results, and extract the following results:

The second test (test-1) for two independent samples:

- a. The researcher used this method to identify the statistical significance differences between the two research groups in the case of statistical interdependence, as well as to test the null hypotheses and extract the discriminating power of the implicit intelligence scale.
- b. The second test: The two samples are related:  
Finding the difference between the pre- and post-tests of the implicit intelligence scale for the experimental group.

### **Statistical methods for measurement and evaluation**

- a. Chi-square - The researcher used the procedures to verify the equivalence of the parents' achievement. Ease factor for the objective items
- b. Ease factor for the essay items.
- c. The discriminating power factor for the objective items of the achievement test
- d. The discrimination factor for the essay items of the achievement test
- e. The equation for the effectiveness of false alternatives.

### **Result and Discussion**

This chapter includes a presentation of the results reached by the researcher according to the research objective and its grounds and the interpretation and discussion of the results as follows:

#### **Presentation of the results related to the first null hypothesis:**

1. In order to verify the first null hypothesis, which stated that

There is no statistically significant difference at a significance level of (0.05) between the average achievement scores of the students of the experimental group taught according to the Bersney model and the average achievement scores of the control group taught using the conventional method. To verify this hypothesis, the researcher extracted the arithmetic mean and standard deviation of the achievement scores of the experimental and control groups. Then, he applied the second test (test - 1) to two independent samples using the SPSS program. The results were included in Table No. (15).

**Table 6.** Results of the t-test for two independent samples of students from the two research groups in the achievement test

The group	Number of sample members	arithmetic mean	standard deviation	degree of freedom	t-test The calculated	Tabular	Statistical significance at the 0.05 level
empiricism	30	45.666	8.555	58	3.741	2.00	function
control	30	38.700	5.553				

it was found that the corrected value (1) was (3.741), which is more than the tabular value (1) of (2:00), at a significance level of (0.05) and a degree of freedom of (58). These results indicate that there is a statistically significant difference between the achievement of the students of the experimental and control groups, and the interest of the students of the experimental group who were taught according to the Bersani model. According to these data, the first null hypothesis is rejected and the alternative hypothesis is accepted, which states: "There is a statistically significant difference at the level of (0.05) between the average scores of the experimental group who studied according to the Bersani model and the average scores of the control group who studied in the traditional way. Therefore, the group moved Rol Al-Karim) the result with the study of 2006) and the study of Al-Lami (2011) Al-Juri and Al-Zubaidi (2015) Muhan (Robyn (1998, 2024) and Yad (2020) Al-Taie (and the researcher explains this result as:

The experimental group, which studied using the Presley model, outperformed the control group, which studied using the traditional method, in the achievement test. The Presley model, with its various steps and activities, attracted students' attention and increased their focus on the scientific material, which positively impacted their performance and interaction in the lesson. It also helped them link previous information to new information, which led to an understanding of the meaning and weaving it into their cognitive structure, and their retention of information. Using the Presley model demonstrated the positive role of students by making them the focus of the educational process and taking into account individual differences among students, and it enhanced their self-confidence and ability in the achievement test.

## Conclusion

1. Using the Presley model led to an increase in the achievement of fifth-grade literary students.
2. Using the Presley model led to the development of implicit intelligence among fifth-grade literary students.
3. Teaching using the Presley model encouraged students to interact with the subject matter by arousing their interest and attention.

## Recommendations

1. The Preparation and Training Unit in the General Directorate of Education in Salah al-Din should conduct training courses for geography teachers and their preparatory school teachers on modern teaching models, including the Presley model.
2. The necessity of using the Presley model by educational bodies (teachers).
3. Under the educational and specialized supervision of male and female teachers, they should be encouraged and motivated to use all modern methods and models, including the Presley model, which helps raise the level of academic achievement and develop implicit intelligence.

## Suggestions

To complement the current research, the researcher put forward a set of proposals, which are:

1. The effect of the Pressley model on the achievement of first-year middle school students in teaching geography.
2. The effectiveness of the Pressley model in acquiring geographical concepts among second-year middle school students and developing their persuasive intelligence.
3. The effect of the Pressley model on the achievement of fourth-year literary students and developing their deductive thinking.

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