

## **Open-Minded and its Relationship to Academic Achievement among the Students at the Department of History in Diyala University**

By

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### **Abstract**

The current research aims at identifying: 1-The level of open-minded among students of the Department of History in the Faculty of Education of Humanities at Diyala University depending on the social variable (male - female). 2-The level of academic achievement among students of the Department of History at the Faculty of Education for Humanities at the University of Diyala according to gender variable (male - female). 3-The statistical indication of the correlation between open-minded and academic achievement among students of the Department of History in the Faculty of Education of Humanities of Diyala University depending on the gender variable (male - female). 4-The extent to which open-minded contributes to the academic achievement of students of the Department of History in the Faculty of Education of Humanities at Diyala University. The research sample is consisted of 250 students from the Department of History at the Faculty of Education for Humanities at Diyala University with 125 students and 125 students selected in the random, equally distributed class method and constituting 41% of the research community of 612 students. To achieve the research's aims, a scale (open-minded) was built based on the Rokech1960 theory. It may be a measure of mental openness. It consists of of 40 items with (20) Positive items and (20) negative items (Knowing ideas, changing ideas) The researcher has identified five alternatives to the scale (apply to me to a very large degree, apply to a large degree, apply to a medium degree, apply to a small degree, apply to me to a very low degree) The weights of these alternatives (5,4,3,2, 1) for positive items, while the weights (1,2,3,4, 5) for negative items, the researcher has analyzed the items of the scale logically and statistically, and the discriminatory force of the items was extracted, and the researcher has extracted the Pschycometric characteristics of the scale, which was calculated using the scale validity coefficient. (Re-test) was (84, 0) and the equation (Alfa Kronbach) was (86, 0), and the research reached the following results: The thesis reached the following results:

- 1- Students of the Department of History at the College of Education for Humanities at the University of Diyala generally have a high level of mental openness.
- 2- Students of the Department of History at the College of Education for Humanities at the University of Diyala generally have a high level of academic achievement.
- 3- The correlation between open-mindedand academic achievement among male students of the Department of History was not statistically significant.
- 4- The correlation between open-mindedand academic achievement among female students in the Department of History was statistically significant.
- 5- The values of the calculated coefficients of the significance of differences between the

correlation coefficients calculated between the three variables and according to the gender variable (male - female) were not statistically significant.

**Keywords:** Academic Achievement; History in Diyala, Iraq

## **Introduction**

Academicians The educational and social constraints imposed on the university student and the physical and moral obstacles to which he is subjected restrict him in expressing himself and affect his mental openness. This will undoubtedly be reflected in the student's academic achievement (Adass and Taq, 1993:315).

There is no doubt that open-minded contrasts with mental closure, which leads to a lack of acceptance of another's opinion if it is contrary to our thinking, as well as to our being influenced by the preconceived intellectual impression of others. (Jasim, 2017:28). The mental closure and intolerance of a particular opinion or idea is the greatest obstacle to scientific progress. It represents a seed of intolerance, a disability, and a hindrance to development in its broad sense, especially among the student group (Melhem and Abbas, 2012:201). Mental closure is a weak ability to find diverse ideas to solve a particular problem, so mentally closed students feel their thoughts are of paramount value, so they cannot coexist with others' thoughts. They do not find between their thoughts and others' thoughts of any kind of communication and convergence (Al-Jamaan, 2020:94). Moreover, mental closure makes students look at reality wrongly, and they do not see the truth and prefer to hear what they want because they see the world in a way consistent with their needs (Alexander, 1998:95). Moreover, the mentally closed does not adequately respond to the characteristics of the cognitive attitude, as it falls under the influence of a closed belief system served by poor need for knowledge and interpretation (Bilal, 2017, 127). The Tai Study (2019) established a weakness in open-minded among Diyala University students.

Low academic attainment is one of the major obstacles to building society in all spheres of life (Al-Dureidi, 2019:278).

The problem of weak academic attainment is one of the most important educational problems facing universities and hindering their performance and thus affecting the student's progress, performance development and academic growth. Hence, low academic attainment in any course or group of courses is one of the most serious types of decline which undoubtedly leads to a breakdown in the educational process. (Al-Astal, 2011:27).

Based on the foregoing, the researcher has prepared a questionnaire that he provided to a number of teaching staff in the Department of History at the Faculty of Education for Humanities at Diyala University \*, which contained a set of questions, the first of which was to note the difficulty in students exercising intellectual competence? The faculty members reported that the students' intellectual competence showed very little, and the second question was do you notice that the students of the history department had mental openness? Teaching staff supported the existence of this problem among the students of the history department.

## **The Significant of the Research**

The importance of studying open-minded is highlighted in the affirmation of modern theories of education and learning on the need for students to learn skills that enable them to control their lives. skills ", such as thinking skill, self-learning skills and skills related to the development of their methods for obtaining and addressing knowledge, The open-minded to

the future in response to technological and social changes that have taken place in contemporary societies and continue to occur continuously and rapidly makes it difficult to predict the information needed for future students (Mira and Abdul Kadhim, 2015:19).

Open-minded refers to the emotional and mental response that enables students to comply positively with different life attitudes and deal with problems and difficulties they face with external events and know the constants and variables in their surroundings and to benefit from new ideas and positive interaction with different attitudes by inviting and employing their information, skills and expertise; as well as research into alternatives to the single option that should be exercised by new means and modern models that may be better, more successful, faster and more sufficient. And open-minded means the ability to take different methods and think different methods or classification different from normal classification, Open-minded also means looking at the problem from multiple dimensions, which is also the degree of ease with which a person changes a particular attitude or view without intolerance, it represents looking at things from several angles (Alsuroor, 2002:33).

Factors that contribute to open-minded are grown from the perspective of the functions that students perform in different thought processes ", as open-minded develops sensitivity to dealing with problems through awareness of their existence and identification of the elements of vulnerability of the situation, this means that some students are faster than others to observe the problem and verify its presence in the situation. The discovery of the problem is a first step in the search for a solution and this ability is linked to the observation of unusual, anomalous, or confusing things in students' surroundings or re-employ them and raise questions around them. There is no doubt that students who are increasingly sensitive do not realize the shortcomings in different situations increase their opportunity to go through them, and therefore the likelihood will increase in front of them towards creative creativity. Open-minded also helps an individual accept risks, offer conjectures, work under mysterious circumstances, and defend their ideas. This means taking the lead in adopting new ideas and methods and seeking solutions to them, while the student can take risks resulting from his work and is prepared to cope with the consequences (Al-Shamari, 2002:59).

Hence the open, unbiased mind of a specific direction tends to choose and process information in an unbiased manner in the direction of past opinions or expectations. That means that a mentally open student is interested in studying all opinions, ideas and views, including those contrary to his or her previous views and beliefs, Amend his previous beliefs if there is strong evidence and arguments to support this (Abdul Latif and Mahmoud, 2019:1461).

Academic achievement is undoubtedly the basis for people's well-being, growth and development and thus infer the parameters of human civilizations. Academic achievement is not only one of the outcomes of the educational process, but also the most prominent results of this process, so it is a fundamental criterion for governing at the academic level for students. and judging the quantitative and qualitative results of the educational process and the effects it brings in shaping the student's personality, making him a great place at all levels of education (Nasrallah, 2004:26).

Universities play a major role in developing students' open-minded to improve their level of learning because they are important strategies in education, which contribute to raising their level of achievement and academic integration, giving them flexibility, openness to others and thinking before making a decision and focusing on the tasks assigned to them. (Hassan, 2017:127).

***The Importance of Research is as Follows***

- 1- The importance of mental openness, as it is one of the cognitive preparations that promotes and supports proficiency in the subject matter.
2. The importance of academic achievement as the inevitable result of students' acquisition of knowledge, as it is the basic criterion in the transition of students from one stage of study to another.
3. The importance of university students as the main pillar of progress, development, and production and as the builders of the present and future.

***Thirdly: The Aims of the Research***

***The current research aims at knowing***

- 1-The level of open-minded among students of the Department of History in the Faculty of Education of Humanities at Diyala University depending on the gender variable (male-female).
- 2-Level of academic achievement among students of the Department of History in the Faculty of Education for Humanities at the University of Diyala according to the gender variable (male-female).
- 3-Statistical indication of the correlation between open-minded and academic achievement among students of the Department of History in the Faculty of Education of Humanities of Diyala University depending on the gender variable (male-female).
- 4-The extent to which open-minded contributes to the academic achievement of students of the Department of History in the Faculty of Education of Humanities at Diyala University.

***Fourthly: The limit of the Research***

The current search is limited to

- 1.Spatial boundaries: Department of History in the Faculty of Education for Humanities at Diyala University
- 2.Time limits: 2021 school year 2022
- 3.Human boundaries: Students of the Department of History in the Faculty of Education of Humanities at Diyala University for the academic year (2021-2022) for the initial stage of morning study.
- 4.Objective boundaries: a scale of mental openness.

***Fifthly: Definitions of the basic terms***

- Open-minded is defined by both

***Rocketach***

A developing and sophisticated way of thinking that accepts change, in which an individual is interested in knowing individuals' thoughts and beliefs, as well as having the ability to change their own thoughts if proven wrong ([Rocketach, 1960:55](#)).

***Depit (Dibbet, et al.,)***

It is the ability to quickly produce and diversify ideas and transform the mind in proportion to the situation ([Dibbet, et al., 2006; 60](#)).

***Operational definition***

The total grade obtained by students of the Department of History in the Faculty of Education of Humanities is the initial stage of the morning study on the scale of open-minded that the researcher has built for this purpose.

## ***2. Academic achievement: is defined by both***

(Alam, 2006):

The student's level of success in a general or specialized field of study represents the acquisition of knowledge and skills and the ability to use them in current or future situations (Alam, 2006:122).

### ***Parker***

Level of achievement, competence or performance in academic education reached by the student and is assessed by faculty members either orally or through editorial tests. (92: 2018•Parker).

### ***Operational definition***

The rate of grades obtained by students of the Department of History at the Faculty of Education for Humanities at Diyala University in the subjects studied during the school year and obtained by evaluating professors for their study performance on the examinations prepared for this purpose and applied to them at the end of the school year.

## ***Theoretical framework and previous studies***

### ***First: Open-Minded***

Open-minded is the most important aspect of human ability, as it is undoubtedly the most effective tool in dealing with life's challenges and difficulties. Different challenges, difficulties, disadvantages, and constraints are practically solved only through open-minded that provides exits and discovers the possibilities of solutions Open-minded is not just a systematic approach, but one that mobilizes energies and extracts the apparent and inherent from them in order to confront and solve problems (Al-Hajazi, 2005:329).

Open-minded is a successful treatment for morale and psychological well-being, and it doesn't mean that we overlook life's actual negatives. Mental openness, on the contrary, arguably looks at the negatives of a situation and its pros at the same time and balances them And it looks at how we can work on the most prominent pros in this situation and how we can stop their negative, There is a fundamental constant in open-minded related to attitudes with oneself In spite of his misfortunes and disappointments, the mentally open must remain positive in his view of himself and his abilities and potential and not let despair seep into his judgment (Hijazi, 2012:38).

### ***Features of open-minded individuals***

There are several features of mentally open individuals, the most important of which may be:

**1-Openness:** means being receptive to new ideas, experimenting with what is new, possessing skills and learning throughout one's life, believing that the individual ages when he stops learning, and characterizing the mentally open person with love of art and creativity, thinking outside the box, and being free from inappropriate social and cultural constraints prevailing in his society.

**2-Efforts and diligence:** Diligence is discipline and accuracy in performing one's mandated tasks and planning well to achieve the goals. The mentally open person tends to take responsibility and take the necessary steps to succeed in life. He works hard and strives for perfection, must be punctually and his time properly regulated, and his actions are from his system of beliefs and morals.

**3-Sociality:** The mentally open person is a friendly social person with others, loves

interacting with people and enjoys attending events, seminars and enthusiasts. He hears and brainstorms ideas.

**4-Acceptance:** Whoever possesses kindness and sympathy with others has possessed acceptance. The open mentally is kind-hearted, trustworthy, shows respect for others, deals with leniency and is not selfish.

**5-Calmness:** The personality of a mentally open person is calm and stoic, quiet in nature, soft in creativity, insane in speech, possesses psychological stability, unlike mentally closed people who suffer from extreme anger, tend to overreact, they are moody feeling anxious and stressed and always see the negative side of everything.

**6.Cognitive curiosity:** People with an open mind may have the curiosity to know what others are thinking. They can put their thoughts to the challenge. They do not feel angry when they discover that they are wrong, are very humble in terms of their knowledge and experiences. They like to hear other people's words and believe that others have the right to

### ***Advantages of mental openness***

***The benefits of open-minded are summarized as follows***

**1-Gaining acumen and insight:** When an individual is open-minded, he becomes better able to identify ideas and discovers that upending new ideas will not only gain him new knowledge around the world, but also teach him new things about himself.

**2-Personal growth:** When the mentally open keeps his mind open, he will always be able to learn new things about himself, the world and the people around him.

**3-Gaining mental strength:** Staying open to thoughts and experiences will make a mentally open person stronger and more vibrant because all the experience and knowledge he acquires will continue to accumulate.

**4-Optimism:** Mental closure leads to negativity, as opposed to what open-minded creates, always inspiring and gaining more positive and optimistic behaviors towards life and the future.

**5-Learn new things:** It is difficult for an individual to learn something new to continue to overthrow himself with the same thoughts, so moving beyond the limits that hinder him and trying to reach new people with renewed perspectives contributes to the mind's survival active and has a chance to gain new knowledge (Al-Framawi and Redouane, 2009:45).

### ***Theories that interpret Mental Openness:***

#### ***I. Belief System Theory Milton Rokic M: Rekeach: 1960)***

Rokic presented the theory of Beliefs System Theory and supported him and his colleagues with numerous experimental studies and research, offering Rokic a theoretical conception of the image of belief-building and its distinction from the content of beliefs, a key addition to this aspect (Abdullah, 1989:19).

The theory of Beliefs System is a cognitive theory, which is based on the concept of stalemate (Dogmatism) associated with the concepts of open-minded mind.

(Closed Minded) These two concepts constitute an individual's own cognitive structure.

Based on this structure, patterns of thinking are formed that are either open or closed and rigid. The harmony of beliefs is located across the bipolar connection, the open-minded is located in one side and the closed-minded in the other, Between the two extremist categories lies the third category of individuals of this accurately measurable connection (202:2000 (Carson,).

In Rokic's view, all behavioural and cognitive aspects are organized within a general format of holistic belief. System Total Belief, characterized by interaction and functional correlation between its elements and contents, refers to one's perceptions of oneself and others, and assists the individual in rendering judgements, establishing arguments and evidence, and achieving compatibility in one's own perception and self-realization (Rokeach,1960: 61).

We would like to point out here that this theory focuses more on building and shaping beliefs than on their content. An open-minded individual can accept and understand others' thoughts without difficulty, even though their contents differ from what he believes. While a mentally closed individual cannot do so, he does not care about the emotional aspect of the individual, if this is true, we can access all forms of an individual's emotion through their cognitive processes. The way he accepts or rejects ideas and individuals is one way and if they differ in quality, Accordingly, if we know something about the way an individual connects himself in the world of ideas, we will also be able to know how he connects himself to the world of people and power. As a result, an individual's actions are in accordance with a system of personal belief that is either open mentally or mentally closed and by which he values his actions (Abdullah, 2021:256).

The more open a system of personal belief is, the less able an individual is to evaluate information, the less influence the authority has, the less skeptical of new ideas and the less attuned to traditional ideas, as well as the consent of different individuals to their different beliefs and traditions, due to open mind and freedom from grudge and hatred (Rokeach, 1960:63).

Rokeach distinguished between two styles of thinking: open thinking and closed thinking. In an open thinking style, the style of thinking is developing and sophisticated, whereby the individual is interested in knowing the thoughts and beliefs of others and has the potential to change their thoughts if they prove them wrong (Al-Sadawi, 2005:33).

Rokeach argued that one of the most important constructive characteristics of the cognitive system is its degree of differentiation, and the differentiation here is the number of beliefs and non-beliefs that are the pattern of belief - Lack of belief, and most individuals seem to know a lot more facts, thoughts and events derived from their belief system than those derived from their non-belief system, likewise likely to disagree in their relative knowledge in the things they believe and in which they do not believe (Rokeach, 1960:76).

### ***Secondly: Gensan Geel 2000 Theory***

Gensan Geel points out that open-minded is an individual's ability to be free from prejudice and away from closed thinking, flexibility of thinking and openness to ideas and values.

In Gens' view, mental openness has several principles, including the search for information, not just some information collected from a single source and to ascertain the validity and study of this information taking into account all other opinions; Jensen asserts that an individual who follows these principles is open and active in thinking because it takes into

account new possibilities and anti-probability evidence that actually seems strong (Haran & Mellers :2013: 195 ).

In Gensan's view, In Jensen's view, active open-minded exists among individuals to varying degrees, because many individuals have a clear bias for their own thoughts Thus, the degree of prevalence of an open-minded is low and vice versa, that is, the less biased individuals do not think, the higher the degree of active open-minded they have, and high degrees of an open-minded indicate openness to beliefs and cognitive and cognitive flexibility, Low scores indicate close-minded and resistance to change beliefs. Individuals who are closed minded, according to this theory tend to have subjective beliefs and an urgent need to increase knowledge and acquire it in different ways. They are characterized by a preference for meditative behaviour from reckless behaviour and a desire to analyze alternatives and divergent perspectives, re-examine the individual for his thoughts and welcome different beliefs and possibilities.

Gensan considers that one of the most important features of open-minded is the pursuit of their goals, the pursuit of improved self-expression skills, the desire to gain knowledge and the use of cognitive capabilities to solve problems (Lindsey: 2001:26).

### ***Second: Academic achievement***

Academic achievement also refers to the academic level attained by the student in a particular course after applying the test to him. The objective of the achievement test in this case is to measure the student's assimilation of knowledge, understanding and skills related to the subject at a given time. Knowledge means the student's information but understanding ensures the ability to express knowledge in several ways (Abdulsalam, 2006:19). **Academic Achievement Characteristics**

For academic achievement a variety of characteristics, the researcher will present them as follows:

1. Academic achievement is characterized by the content of a particular subject, or a set of materials, each of which has its own knowledge.
2. Academic achievement takes care of the prevailing achievement of the majority of ordinary students within the classroom.
3. Academic achievement is a collective approach based on the use of common collective examinations, methods, and criteria in the issuance of calendar judgements.
4. Academic achievement is usually shown by answers to quarterly written, oral and performance examinations (Brewer, 2010:144).

### ***Types of academic achievement:***

Academic achievement can be divided into three types, which the researcher will summarize as follows:

1. Good academic achievement: The student is at a high level and higher than the rate obtained by the rest of the students at the same level and in the same department This is done using all capacities and possibilities to ensure that the student receives a higher level of expected performance. so that he is at the top of the normative deviation on the positive side, giving him superiority over the rest of his colleagues, Thus, its acquisition of information and utilization of expertise is greater and more useful education ", a highly educated student achieves good and high attainment levels.



2. Intermediate academic achievement: The student's degree of achievement in this type of achievement represents half of the possibilities he possesses. His performance is average and his degree of retention of information and his benefit from it is medium as well.
3. Low academic achievement: This type of performance is known as poor academic achievement. The student's performance is lower than the required level of science compared to the rest of his or her colleagues. His usefulness and understanding of the estimated course is very low. In this type of achievement, the student's investment in his or her mental abilities and intellectual potential is weak despite the presence of a fair percentage of abilities. This may be a delay in all subjects, and this is called a general school failure. education ", because the student finds himself unable to understand and follow up on the school programme (Nasrallah, 2004, 401).

#### ***Axis Two /Previous studies***

##### ***A: Studies on open-minded Al-Tae Study (2019)***

##### ***(Open-minded and ego flexibility and their relationship to optimism in university students)***

The study was conducted in Iraq with the aim of identifying open-minded in university students and identifying the significance of differences in open-minded in university students according to type variables (Male - Female), Specialization (Scientific - Humanitarian) and (first - fourth), the correlation between open-minded and optimism, and the extent to which open-minded and elasticity contribute to optimism among university students, the study was determined by Diyala University students of both sexes (Male - female), specialization (scientific - human) and grade (first - fourth) For the morning study of the academic year (2017-2016), the study sample was 600 students selected in a random class manner, and the study tool consisted of a measure of open-minded adopted by the researcher using a scale (Stanorich & Weast, 1997) and another measure at Michigan

University (University of Michigan), which adopted the Baron theory, using the curve of natural distribution, standard deviation, computational circles, the Pearson Correlation Coefficient and the Cronbach's Alpha Equation, results showed that sample individuals do not have open-minded, and that open-minded in males is better than in females, When a scientific specialization is better than a human specialty and when the fourth grade is better than the first grade and that open-minded in female scientists is the best human male and female human, As for human males and females, there are no differences, and open-minded in the first males is better than the first females. The results of the study showed a positive correlation between open-minded and optimism according to the gender variable and in the male's interest as well as a positive correlation between the measure of open-minded and the measure of optimism according to the variable of human specialization, A positive correlation between the measure of open-minded and optimism according to the first and fourth grade variable and the results of the study also showed a positive correlation between open-minded and optimism for the sample as a whole, Students who are not mentally open are not optimistic, while students who are flexible are optimistic (Al Tai 2019).

##### ***Sankesha Angeetha Study: 2014***

##### ***(The impact of Open-Minded as a contributing factor in Alleviating Pressures and Raising the level of Academic Achievement of University Students)***

The study was conducted in America and aimed at testing the impact of the practice of open-minded from alleviating these pressures, including the level of academic achievement of university students. 200 UCLA students, and the researcher relied on an information-gathering questionnaire, Using the difficulty coefficient, the discrimination coefficient, the Pearson correlation coefficient, and the analysis of unilateral variability the study found an intermediate effect of open-minded in the relationship between stress exposure and the resulting stress and

stress, The results also showed a positive correlation between open-minded and high levels of academic achievement. (Sangeetha, 2014).

***B: Studies on academic achievement Al Shayeb Study (2017)***  
***(Relationship of Psychological Hardness to Physical and Sports Education Student's Academic Achievement)***

The study was conducted in Algeria with the aim of knowing the relationship between hardness and academic achievement of university students and the relationship of academic achievement to the student's scientific level. The sample of the study consisted of (666) Students from the Institute of Physical and Sporting Activities Science and Technology at the University of Ouergla and at all levels of education; (2016-2017). In order to measure the variable educational achievement, students' outcomes were relied upon from their curricula during the year preceding the current study, Every examiner was asked to record their annual average for the evening school year in the personal data of the psychological hardship questionnaire and the researcher has used the Pearson Correlation Coefficient and the second test for two separate samples, the results of the study has showed a correlation between hardness and educational achievement and the study also showed that there were no significant differences in psychological hardness and educational achievement at different levels (Al Shayeb, 2017).

***Williford's Study 2013***  
***(The relationship between Emotional Intelligence and Academic Achievement of university students)***

The study was conducted in America and aimed at knowing the relationship between emotional intelligence and academic achievement among university students, the sample of the study consisted of 500 students from the University of Montgomery, Alabama, through which Barron's intelligence test was applied ,(133) item in a duration of (30) minutes, and academic achievement test has been prepared by the researcher consisting of (40) items to distinguish between high, medium, and low achievement per student, the result of which was a correlation between academic achievement and conscientious intelligence among university students (Williford, 2013).

***Research Methodology & Procedures***

***First: Research Methodology***

To achieve research objectives, the researcher has adopted an associative descriptive research method. The descriptive research method is one form of analysis and structured scientific interpretation to describe and quantify a specific phenomenon or problem by collecting, classifying, and subjecting metered data and information to careful study and thus expressing it digitally (Melhem, 2010:374).

***Second: Research Population***

The current research population consists of 612 students in the History Department of the Faculty of Education for Humanities, University of Diyala, Government Morning, Elementary Studies for the academic year 2021-2022, 248 students by gender (male-female), and the first, second, third and fourth grades, 41% students by 364 and 59% students by 2 students from the research population.

The researcher has obtained the preparation of students from the Department of History of the Faculty of Education for Humanities at Diyala University under the research cooperation document issued by the Faculty of Basic Education.

### ***Third: Research Sample***

Because the current research is divided according to the gender variable (male, female), the sample of the research was selected in the random class method with equal gender distribution by 250 students, 41% of the research community is distributed equally by gender by 125 students and 125 students, from the History Department of the Faculty of Humanities of Diyala University.

### ***Fourth: Research tool/measure of Open-minded***

For the purpose of achieving the current research objective, a scale must be available that is adapted to the literary, and the theoretical framework of the research and the nature of the research population, so the researcher has built the scale of open-minded after identifying the areas of the scale, defining each area, and the researcher has drafted the items of the scale of open-minded consisting of (40) items by (20) a positive items and (20) negative items, after identifying and defining the areas, using the theoretical framework and relevant previous studies and distributing the items to the scale areas as follows:

1. (20) items for the first area (knowledge of ideas).
2. (20) items for the second area (change of ideas) in preliminary terms and based on theory (Rekeach: 1960) for open-minded.

### ***Preparation of Scale Instructions***

Measurement instructions are necessary and important instructions to guide students in the performance of the test. These instructions and the instructions facilitate the codification of students' responses to the items in a way that fully reflects the learner's real abilities (Melhem, 2006:341).

Based on the foregoing, the researcher drafted the metric instructions as follows:

#### ***A: Answer Instructions***

For the scale to give good results, it is necessary to prepare clear-formulated instructions for the scale by clearly and specifically identifying what is required of the examiners. These instructions clarify the performance required in the test or scale and indicate the method and place of the answer (Sulaiman, 2006:389). The researcher drafted the instructions for answering the paragraphs of the intellectual competence scale in a clear and accurate manner, as follows:

- 1-Do not mention the name and form is used for scientific research purposes only.
- 2-Leave no an item unanswered.
- 3-The answer is completely confidential.
- 4-The need to respond honestly and accurately.
- 5-There are no correct and other wrong answers, and any answer is correct as long as you express your opinion.
- 6-Placing a sign ( ) under one of the alternatives in front of each item that reflects the reality of your condition and what you feel,

The researcher also considered the concealment of the real purpose of the scale (not writing the name of the scale) to obtain truthful and consistent answers, with the total number of items (40) being the time allocated to answer the scale (12) minutes and the total grade of the scale (200).

#### ***B. Correction instructions***

Scales are graded on the basis of giving weights ranging from (5-1) to alternatives to

response, respectively

(Apply to me to a very large degree, apply to a large degree, apply to a medium degree, apply to a small degree, apply to me to a very low degree) for positive items and weightings ranging from (1-5) to alternatives to response respectively to negative items. The five-way runway was used based on the gradient used in similar measures and according to experts and specialists, with the highest score on the scale (189) and the slowest score (93).

### ***Logical analysis of the scale (presentation of the tool to arbitrators)***

To ascertain the compatibility of the items with the characteristic prepared for measurement, the researcher presented the measure of open-minded to the number of experts and specialists in the teaching methods of history, measurement, evaluation, general psychology, and the philosophy of breeding, 30 to demonstrate their views and suggestions on the validity and modification of each item of the scale.

### ***Experience the clarity of items and instructions (Exploratory Application)***

To achieve this aim, the test was applied to a sample reached (50) Students from the History Department of the Faculty of Education for Humanities at Diyala University, selected in the random class method with equal distribution according to gender variables (Male \_ Female), the result of this experiment was that the items of the scale and its instructions were clear and understandable to all members of the sample, and after the completion of all students' responses, the researcher found that the items of the scale and its alternatives and instructions were clear, as no one inquired about them, and the average time taken by items (12) were precise.

### ***Statistical analysis of scale paragraphs***

Statistical analysis means a structured methodological process that begins with data collection, followed by a classification and tabulation process, followed by an analysis through a set of equations termed statisticians, and eventually the results are presented in a brief format, using tables and graphs. (1970 :64: Cronbach & Gleser,). An explanation of how it is calculated is as follows:

- ***Discriminatory power of Scale item***

Discriminatory power is an important standard characteristic of educational and psychological metric items, and the discriminatory power of metric items indicates that it is its ability to distinguish between screened individuals who perform well and those who perform poorly. A good item distinguishes two individuals in which they differ behaviorally (Mikhail, 2009, 98).

### ***A: Style of the two extremist groups (peripheral comparison)***

The researcher has extracted the discriminatory power in the way of the two extremist groups of the open-minded metric items, and then extracted each student's overall degree, and the grades were then graded downward from the highest to the lowest and a percentage (27%) of the higher group forms and a percentage (27%) of the lower group forms were adopted, with the aim of identifying the two groups with the greatest size and maximum possible variation.

Ahman & Clock (1971:182), thus reaching the two extremist groups (136) Form by (68) for the upper group and (68) for the lower group, and after the use of the T test T-Test for two separate samples equal in number to test the difference between higher and lower group scores. The higher calculated T value than the tabular T value of 1,96 was a sign of the

distinctive strength of the paragraphs. All T values calculated for mentally open-scale vertebrae were greater than the tabular T value of 0.05 and (134), this indicates that all paragraphs of the Mental Openness Scale are statistically relevant.

### ***The Relationship of the items' grade to the overall scale (internal consistency)***

This method is one of the most used in analyzing the items of metrics measurement of behavioural phenomena ", indicating the consistency of the scale items in measuring behavioural phenomena, Each item of the scale proceeds along the same path as the scale. and that the link of the item's grade to the overall degree of the scale means that the item measures the concept measured by the overall degree, The scale that takes its vertebrae on this indicator has a constructive honesty (Allen and Yen, 1979: 124).

In applying the Pearson correlation (Pearson) to extract the relationship between an item's degree and a scale's overall score, at an indicative level (0.05) and a degree of freedom (248), all items show a statistically related link to the overall scale, indicating that the metric items are consistent with each other in measuring open-minded.

### ***The relationship of the degree of the items to the extent of the area to which it belongs***

The researcher calculates the correlation between the degree of the item and the degree of the area to which it belongs to the scale of open-minded, and when comparing the values of the correlation transactions calculated between the degree of each item and the degree of the area to which it belongs with the critical value of the correlation transactions at an indicative level. (0.05) and the degree of freedom (284) show that all items have a statistically relevant function. This indicates that the items of the scale are consistent with each other in measuring open-minded.

### ***Psychometric Properties for the Scale***

One of the most important standard features of the scale confirmed by specialists in educational and psychological measurement is validity and reliability, as they depend on the accuracy of the data or the scores we obtain from psychological measurements. (Abdulrahman, 1998:159). A detailed presentation of the psychometric extraction mechanism of the open-minded scale is given.

#### ***First: Scale Validity***

Researchers' interest in the validity of the scale starts from the very beginning of planning and ends only when it interprets and reports its results, because the measurement depends not only on the scale but on its purpose and the group with which it is used and on the method of correction and application (Odeh, 2010:147). The researcher verified the validity of the scale as follows:

#### ***1. Face Validity***

This method is one of the simplest in assessing test validity, as the researcher examines the relationship between the content of the scale's items and its title, and therefore the apparent face validity depends on the experts' logical analysis of the scale items, so it is called ostensible honesty (Mikhail, 2009:48).

The researcher presented the scale in its primary form to a group of arbitrators, history specialists, teaching methods, measurement, evaluation and general psychology appendix (3) to ascertain the validity of the instructions, the validity and the appropriateness of the items to

measure open-minded, and the percentage agreed on the items of the scale (80%) except for very simple modifications in the wording of the items.

### ***Validity of Construction (Validity of concept) Discrimination Validity***

The validity of the construction is the degree to which the theoretical constructions of the trait are measured and differentiated by the different concepts or theoretical assumptions underlying the researcher and according to the theory adopted by him or by the nature of the characteristic to be measured and represented by standard. The language of the measurement is the ability to empirically verify and verify tests or measurements. The validity of the construction in making assumptions and experimental verification of the attribute to be measured is thus concerned. 176), which the researcher will summarize as follows:

The validity of the construction was verified by the following indicators:

#### ***A. First indicator (Items distinction)***

T-Test for two separate samples of equal number was used to test the statistical differences between the averages of the upper and lower groups' scores and for each of the 40 items of the scale.

#### ***B: Second Indicator:*** the relation of each item's grade to the overall scale (internal consistency)

The researcher has also analyzed the items in a manner of internal consistency by calculating Pearson's correlation factor between the degree of each item and the total sum of the grades of the scale to which it belongs.

#### ***C: Third Indicator:*** (relevance of the item's degree to the area to which it belongs)

The researcher has extracted the correlation using the Pearson correlation coefficient between each item degree and the total of the degrees of the single area to which each item belongs. ***Second: Constant measure of open-minded***

Consistency is particularly important in choosing and using a test or measure for a particular purpose. Consistency indicates how much confidence we can put in the results of our tests. The main objective of testing individuals is to reach and reassure judgments or decisions about them, so these provisions must in turn be based on accurate and reliable measurement tools. (Omar and his colloquies, 2009:215)

According to the foregoing, the concept of consistency refers to consistency of test scores and measurements for a particular group of individuals, i.e. consistency over time, consistency of different formulas of the same test, consistency of test vocabulary itself, or consistency across different testee or corrector personnel, since consistency is a necessary condition for testing or good measure (Alaam, 2006:88)

Lastly, constant is the consistency of the scale paragraphs in measuring what the scale is supposed to measure with an acceptable degree of accuracy (Audah,1998, 235)

The researcher has adopted two methods in calculating the constancy:

#### ***1-Method of re-testing (quietness or stability)***

An important dimension that affects the stability of test scores is the time factor ,so this method depends on examining the stability of the test in the light of the time variable, This

method depends on the application of the test and then the re-application of the same test to the same sample of individuals under the same conditions after a period of time and then the coefficient of association between the grades you receive in both application times is calculated and the coefficient of association (resulting constant) is called the coefficient of stability between the two application times. The constant factor calculated in this way reflects the consistency between the scores of the same test, as it has either been reapplied to the same individuals (Ghanaim, 2004:71).

To calculate stability in this way, the researcher has applied a scale of open-minded to a sample of its strength. (50) Students from the History Department of the Faculty of Education for Humanities at Diyala University (25) Students and (25) Students after two weeks of the first application, the researcher reinstated the application on the same sample and under almost the same conditions, using the Pearson correlation coefficient (Person) Being the most commonly used and common correlation transaction in this field (Suleiman, Abu Alam, 2010:574), Pearson's correlation coefficient between the two applications (0.84) is a good persistence factor, and the high persistence factor indicates stability in individuals' answers over time (Al-Rashdi, 2000, 70).

## 2. Alpha- Cronbach Method

To calculate consistency in this way, the same sample referred to in the 50-student retest method was adopted. The researcher used the Alpha Cronbach formula for internal consistency, which was 0.86, which is a good constant factor, because this equation reflects the consistency of the scale paragraphs internally (Alaam, 2000, 166) and table (1) shows the scale stabilization factors by both methods.

**Table 1.** *Open-minded Scale Stability Coefficient in Retest Method and Alpha-Cronbach.*

Field	constant Method	
	Re-test	Re-Alfa Cronbach
Knowledge of Ideas	0,825	0,855
Changing Ideas	0,859	0,874
Scale as a whole	0,847	0,861

## Academic Achievement Scores

The researcher has obtained the degrees of students of the Department of History in the Faculty of Education of Humanities at Diyala University under the document of research cooperation issued by the Faculty of Basic Education 16/11/2021 in number (949).

After obtaining the results of the students in their academic course for the previous year 2021-2020 and for the four grades (first, second, third and fourth), the researcher extracted the average scores of students (average) for his eye of 250 students with 125 male students and 125 female students to find the correlation between mental openness and academic achievement.

## Statistical Characteristics of Academic Achievement Degrees for Students of History Department

Some statistical descriptive estimates of the previous year's academic achievement scores were obtained due to the application of the descriptive aspect of the Social Sciences

Statistical Portfolio (SPSS) to all members of the basic sample, and table (2).

**Table 2.** *Statistical Characteristics of Sample Statistical Analysis of Academic Achievement Scores.*

	<b>No.</b>	<b>250</b>
Arithmetic mean		75,832
Median		76,5
Mode		75
Standard Deviation		5,454
Variance		29,747
Skewness		-0,750
Standard error of Skewness		0,154
Kurtosis		1,350
Standard error of Kurtosis		0,307
Range		39
Low Grade		51
High Grade		90

### ***Final Application of the Research Tool***

- 1-Each student's form is numbered in the same sequence as the student in the list of grades in order to be able to include the average student scores against the degree obtained by the student in the mopen-minded scale.
- 2-The researcher has applied a scale (mopen-minded) to the basic research sample of 250 students from the History Department of the Faculty of Education for Humanities at Diyala University.
- 3-The researcher has explained the instructions of the scale before applying it, the purpose of the research and the usefulness of applying the scale to the research sample, and that the success of the researcher in his task depends on accuracy and seriousness, and in answering all the items of the scale.
- 4-The researcher has submitted the two scales form successively and the accompanying instructions to the research sample in the classrooms.
- 5-The researcher has collected the scale forms successively from the search sample directly, and confirmed that they had answered all the paragraphs. History at the Faculty of Education for Humanities at the University of Diyala and for the four grades.

### ***Presentation and Interpretation of the Results***

This chapter contains the presentation of the findings of the present research in accordance with its objectives, interpretation and discussion in the light of the theoretical framework and previous studies. It will be presented as follows:

***The First Aim: (Knowing the level of open-minded among students of the history department of the Faculty of Education Humanities University of Diyala according to gender variable: male - female)***

To achieve this aim, the Arithmetic mean was extracted for the research sample scores as a whole on the scale of open-minded is (146,336) degrees with a standard deviation capacity (19,564) degrees, while the hypothetical average (120) Degree and to determine the significance of statistical differences between the computational medium and the hypothetical medium, the T test was used (T-Test) for one sample, test results showed that the computed T value (21,284) greater than the tabulated T value of (1,960) at an indicative level (0.05) With



a degree of freedom (248), this indicates that students of the Department of History of the Faculty of Education of the University of Diyala Humanities generally have a high level of open-minded, table 3 shows this.

**Table 3.** *One Sample T Test Results to Know the Level of Open-Minded of History Department Students.*

Category	No.	Arithmetic mean	Standard Deviation	The hypothetical mean of the scale	T-Value		Indication level at 0.05	Judgement
					computed	Tabulated		
Sample as a whole	250	146,336	19,564		21,284	1,960	0,05	Function for average sample
Male	125	148,816	18,874	120	17,070	1,960	0,05	Function for average sample
Female	125	143,856	20,000		13,336	1,960	0,05	Function for average sample

***The Second Aim: (Knowing the level of academic achievement among students of the Department of History in the Faculty of Education of Humanities of the University of Diyala according to gender variable: male-female)***

In order to achieve this aim, the arithmetic mean was extracted for the search sample scores as a whole which is (832, 75) degree and deviation (454, 5) degree, and reached the hypothetical medium (50) Degree, for the indication of statistical differences between the arithmetic mean and the

hypothetical mean, one sample T-test was used, and test results showed that the computed T value (887, 71) is greater than the TV of the total (960, 1) at the case level (0.05) and to the degree of freedom (248), this indicates that students of the Department of History of the Faculty of Education of the University of Diyala generally have a high level of academic achievement, and table (4) shows this.

**Table 4.** *One Sample T Test Results to Know Academic Achievement Level in History Department Students.*

Category	N	Arithmetic mean	Standard Deviation	The hypothetical mean of the scale	T-Value		Indication on level at 0.05	Judgement
					computed	Tabulated		
Sample as a whole	250	75,832	5,454		71,887	1,960	0,05	Function for average sample
Male	125	76,368	4,806	50	61,330	1,960	0,05	Function for average sample
Female	125	75,296	6,004		47,104	1,960	0,05	Function for average sample

***The Third Aim: (Knowing the statistical significance of the correlation between open-minded and academic achievement in the students of the History Department according to the gender variable: (Male - Female)***

To achieve the research objective, the Pearson Correlation Coefficient was used to

calculate the correlation between open-minded and academic attainment. The T-test was then used to indicate the correlation coefficient to verify the statistical significance of calculated correlation transactions and table (5) shows this.

**Table 5.** Results of the T test to indicate the correlation factors computed between open-minded and academic achievement in the students of the History Department.

First Variable	Second Variable	Category	No.	computed correlation factor	T-Value		Indication level at 0.05	Judgement
					computed	Tabulated		
Open-Minded	Academic Achievement	Sample as a whole	250	0,216	3,483	1,960	0.05	significant
		Male	125	0,159	1,786			Not significant
		Female	125	0,230	2,643	significant		

**Table 5** shows:

- 1.The correlation between open-minded and academic achievement in the sample as a whole has been a statistical function, and this finding indicates that the relationship between both variables in the sample as a whole is a strong correlation. 6-The researcher has obtained lists of academic achievements for students of the Department of
- 2.The correlation between open-minded and academic achievement among male dating students was not a statistical function, and this finding indicates that the relationship between both variables in male students is weak.
- 3.The correlation between open-minded and academic attainment of female students in the dating department was a statistical function, and this finding indicates that the relationship between both variables in female students is a strong correlation.

**The Fourth Aim: To identify the extent to which open-minded contributes to the academic achievement of the students of the Department of History,**

To achieve this goal, Multiple Regression Variance Analysis was used. The results were as shown in table (8).

**Table 8.** Results of Multiple Regression Variability Analysis to Determine the Extent of Intellectual Competency Variables and open-minded contribute to Academic Achievement of History Students

Source Variable	Mean Square	Degree of Freedom	Total Square	F-Value computed	Tabulated	Indication level at 0.05
Regression	1739,376	2	869,688	23,358	2,995	Statistically significant
The Rest	9196,400	247	37,232			
Total	10935,776	249				

The results of Table 8 show that the variable of open-minded contributes statistically to the academic achievement of the students of the Department of History, as the computed percentage of the Multiple Regression Variation Analysis (23,358) is greater than the AI-Fae value (2,995) at an indicative level (0.05) and with two degrees of freedom (2-247).

## Conclusions, Recommendations and Suggestions

### Conclusions

In the light of the researcher's findings by analyzing and discussing the data, he

concluded.

- 1-The ability of history students to cope with rapid changes in different aspects of life, and their desire to keep pace with the evolution of our societies to address ambiguous attitudes in the future, has made them enjoy a high level of open-minded.
- 2-The students of the Department of History adapted to the university environment, using modern teaching methods and educational activities from their teachers raised their level of excitement and desire for education and thus became able to accomplish and perform successfully, thereby raising their level of academic achievement.
- 3-Male History Department students were unable to invest their open-minded in raising their academic achievement, thus weakening the relationship between mental openness and academic achievement.
4. Female students of history department enjoy open-minded. This helped them to raise their academic achievement.
5. The interpreted variation in academic achievement scores is due to open-minded at a rate from the influence of other variables.

### ***Recommendations***

In light of the study's findings, the researcher recommends the following:

1. Designing programs specifically designed for the development of mental openness and academic achievement of university students to improve their creativity and scientific development.
2. Universities cooperation with civil society organizations and their invitation to organize workshops and seminars to promote the principle of open-minded and acceptance of the other.

### ***Suggestions***

To complement the relevant aspects of this research, the researcher proposes to conduct studies similar to the current study on the following:

- 1-Knowing the relationship between open-minded in other school students such as middle and middle school.
- 2-The study of open-minded with other cognitive and demographic variables not addressed in the current research. such as cognitive integration, social intelligence, historical awareness, and social thinking.

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