ISSN 1989 - 9572

DOI: 10.47750/jett.2023.14.03.045

Self- Categorization of University Students

Ali Hussein Al-Mamouri 1

Nawras Ali Haddawi^{2*}

Journal for Educators, Teachers and Trainers, Vol. 14 (3)

https://jett.labosfor.com/

Date of reception: 22 Feb 2023

Date of revision: 16 Mar 2023

Date of acceptance: 05 Apr 2023

Ali Hussein Al-Mamouri ,Nawras Ali Haddawi (2023). Self- Categorization of University Students. *Journal for Educators, Teachers and Trainers*, Vol. 14(3). 368-375.

^{1,2}University of Babylon / College of Education for Human Sciences / Department of Educational and Psychological Sciences



Journal for Educators, Teachers and Trainers, Vol. 14 (3) ISSN 1989 – 9572

https://jett.labosfor.com/

Self- Categorization of University Students

Ali Hussein Al-Mamouri ¹, Nawras Ali Haddawi^{2*}

^{1,2}University of Babylon / College of Education for Human Sciences / Department of Educational and Psychological Sciences

*Corresponding Author Email: nawss.1999@gmail.com

ABSTRACT

Identification of the following is the goal of the current study:

1- The Self – Categorization of the university students.

Students at Babylon University make up the study's population. (Morning Study) including both genders (males and females) that majoring (Scientific and Humanities) studies for the school year 2022-2023. The research sample consisted of (380) male and female students were selected by stratified random method with appropriate distribution, and to achieve the objectives of the research, the researcher adopted the self-classification scale (Al-Saadi 2010) in this research, based on the theory (Turner 1979) It was presented to a group of specialized arbitrators to judge the validity of its paragraphs, and then the psychometric properties were extracted for it through the application to the research sample of (380) male and female students, and the value of the stability coefficient by Alpha Cronbach method (0.8 5) and by re-testing method (0.81) After the scale became in its final form (42) items, the researcher applied it to the research sample of (380) male and female students, and the researcher built a scale of emotional dissonance based on the theory (1983, Hochschild) of emotional dissonance As well as it was presented to a group of experts arbitrators were also extracted psychometric properties of it, as the coefficient of stability of the scale in the manner of Alpha Cronbach (0.8 8) and the method of re-testing (0.83) and after confirming the validity of the scale was applied in its final form (30) paragraph on the research sample.

After finishing the application, the researcher utilized the proper statistical techniques to analyze the data with the help of the statistical bag for social sciences, and the results of the research showed the following:

1- The university students have the ability for Self - Categorization.

Keywords: Self- categorization, university students

Chapter One / Definition of Research First: The problem of the research

The young segment in general, and university students in particular, are thought to belong to the social classes that influence how people live in any given society, whether negatively or positively, and that by virtue of their mental and psychological formation they are more affected by circumstances and crises and more sensitive to problems, and this stage is characterized by the actions of the individual after emotional stability and passing through tensions due to fluctuations in the aspects of the Personal to them in all their mental, emotional and social dimensions and the appearance of some signs of confusion, hesitation, and fear, which they will face in their lives (Abu Seif, 2011, 305).

Especially as we live in an era witnessing scientific, intellectual and social changes. Accelerating as a result of rapid cognitive progress and the information and communication revolution, as well as social and political changes, including wars and religious differences, and many factors to which the individual, especially university students, is exposed, affect their outlook on life and their interaction with social classes, which have a significant impact on the formation of the individual's personal identity represented by the self-image that he perceives about himself and the view of others and their impressions towards him, and therefore will affect the choice of the appropriate social class for his abilities and His potential (Cooley, 1902,129).

Differentiating people based on their mental faculties, age, sex, money, ancestry, sect, or political party may result in significant gaps between groups. and lead to psychological effects on the subject group, whose members face difficulty in achieving because the prevailing social order or social policy deprives it of many opportunities such as education, work, health, adequate housing and other requirements for social welfare (Giroux, 1997, 9).

The Importance of the Research

Tajfel (1974) stressed that the great importance of self- Categorization is evident from the social status that the individual reaches, as it derives from the membership of the group that stands as a supporting force and cases of association and relations between the individual and the group to which he belongs, and therefore the thinking in the formation of the identity of the individual is based on the process of social comparison within the group, such as specialization, gender and social class as a model for the general criteria for self-distinction, and this process needs the individual to remodel the choices. Within a multicultural society, alternatives and adoption of norms

and

behaviors

(Tajfel, 1974,74).

The prevailing culture in different societies forms the foundations of the individual's categorization of himself and others, it fuses the individuals of society in one mold and forms their personalities according to their standards or vice versa, and culture confers on their individuals' certain qualities without others. Some societies have more violent, aggressive, dominant, authoritarian and powerful individuals, or conversely peaceful and cooperative, despite differences in the personality of individuals, they may be submissive to the frame of reference of society (Adas, 1993, 173).

The basic principle of the importance of self- categorization is manifested by engaging in the social categorization of the self leads to reducing the psychological and cognitive requirements and challenges imposed on the individual, where the interpretation of each person or situation facing the individual and dealing as a member of one or more social groups is relatively necessary, in addition to trying to reduce uncertainty about the individual's social status specifically, depending on social categorization, which in turn can benefit our expectations (i.e. reducing uncertainty) for any future interactions through individuals interpreting the social groups of which they are a part positively, and doing so in order to enhance a sense of self-worth (Abrams&Hogg,1990,201).

Third: the objectives of the Research

Know the level of self- categorization among university students.

Fourth: Limitations of the Research

The current research is determined by students of the University of Babylon of both sexes (males and females) and specialization (scientific and humanitarian) for the academic year (2022-2023).

Definitions of key terms

First: Self- Categorization is defined by:

- **1- Turner (Turner, 1984):** It is the tendency of cognitive motivation of the individual to classify himself and individuals or groups according to the principles of similarity and difference and based on the dimensions of social comparison in terms of traits, behaviors and attitudes with other individuals or groups (Turner, 1984, p. 60).
- **2- Theoretical definition:** The researcher adopted the definition of (Turner, 1984) as a theoretical definition of the current research as the researcher relied on his theory in measuring self- categorization and interpreting the results

Procedural definition: It is the total score obtained by the respondent through his answer to the paragraphs of the self- categorization scale.

Chapter Two / Theoretical Framework and Previous Studies first axis: Self – Categorization

Preface

The self is a psychological concept that has its connotations, there is no language in the world, whether ancient or modern, and on the different civilizations but used words such as (I, myself, and me) that indicate the nickname of the soul, so the roots and foundations of the concept of self are very old as sources confirm their beginning BC, and that some of the prevailing ideas at the present time, their origins go back to (Homeros) who distinguished between the physical human body and the non-material function that was launched Later on it with the soul or soul Spirit, Psyche, soul. Farhan points out that the concept of soul was introduced by Socrates (470 or 469 BC) where he understood the deep meaning of the phrase inscribed on the temple of Delphi "Know yourself by yourself." The Indian manuscript, which dates back to the first century B.C., states: "The soul glorifies itself, and does not think that it is despicable." The soul is its own friend, and its first enemy at the same time. Through it, it feels that man was thinking about his behavior. The soul thinks, chooses, and evaluates. (Bornstein, etal,2003, 235).

Arab thinkers have an interest in this, Ibn Sina in the tenth century AD, sees the concept of the self as the cognitive image of the human soul. Descartes was also interested in the issue of dualism between the body and the soul. Thinkers later spoke of the concept of the self as the soul at times, and considering the self at other times, such as John Locke (1632-1704), George Berkeley (1685-1753), Hume (1740), Thomas Brown (1778-

1820), James Mill (1829), Kant (1838).) (Al-Zahir, 2004, 16) Because the self is an important element of the development of the individual, and is formed during the process of socialization in the family, society and parents through their relationships and interaction with children during socialization do not only reveal medical information to them, but also reveal information related to lifestyle and personal choices as well, except for private and more confidential information, it is revealed only among adult people (Sommer & Allen, 2005, 79).

Theories that explained the concept of self- categorization The theory of social exchange 1959

The theory of social exchange appeared at the end of the fifties of the twentieth century when the pioneer of social exchange (Kelly and Thibot) published their book tagged "The Social Psychology of Groups" in 1959. When the scientist George Hommans published his book called "Social Behavior and its Primary Forms" in 1959. In these two books, the pioneers of the theory of social exchange developed the basic principles of exchange and the intellectual premises from which the theory proceeds, and this theory was a reaction to structural, functional and structural functional theories, so that it is any theory does not proceed in its interpretations of social phenomena from structural postulates and functional factors related to the parts of the social structure and its functions, but rather proceeds in its interpretations from interactive premises based on social exchange between individuals in giving and taking, The theory of social exchange, like other social theories, can be used to explain and analyze all the social phenomena and processes that we think of, in other words, it is not a limited theory, but rather a general and broad theory that can explain all the angles, manifestations and processes of the social system and social life of individuals (Cook et al, 2013, 81).

Self – Categorization Theory 1979 (SCT)

This theory originated by (Tajfel & Turner 1979) and began to develop it (Turner 1979) in order to understand the psychological foundations of intolerance between groups, by identifying the minimum conditions that lead members of a particular group to intolerance in favor of their internal group against other external groups and dates (Hogg 1987) that "Tajfel" presented his theories in 1972, and then formulated them within his theory "social identity theory" jointly with "Turner" in 1979, to explain how it derives The self is its meaning from the social context that occurs in intergroup relations, and to explain how social categorization determines the place of the individual in society, and to define the meaning of "social group" in terms of self- categorization (Hogg & Turner, 1987, 337).

The theory was established by the scientist (Turner 1982) in the early eighties of the last century, as a social theory of the group, as it completed the processes of self-definition associated with social identity, and the need for individuals to self-esteem and positive excellence. The University of Bristol in Britain was the center for social identity research conducted by British and European experimental psychologists, Tajville students and colleagues. But Tajville's death in 1982 coincided with developments Britain's politics, and the spread of American social knowledge, led to a rapid collapse in the Bristol Centre, followed by migrations that contributed to more social identity research.

First: Studies on self- categorization

1 - Arab Studies

(Al-Saadi, 2010) Self- categorization and its relationship to the trend towards social control among university students"

The objective

The study aimed to build a scale of self- categorization and orientation towards social domination and also to identify the reason for self- categorization and orientation towards social domination among university students.

Results

The results of the study showed the possession of the study sample self- categorization and orientation towards social domination and the results also indicated that there were no statistically significant differences for gender and specialization variables (Al-Saadi, 2010: 134)

(Alwan, 2014) Building a self- categorization scale for educational counselors"

The objective

The study aimed to build and identify the categorization of the self.

Results

The results of the study showed that educational counselors have self-categorization (Alwan, 2014).

Chapter Three / Research Procedures

Second: Population of the research

The research community is defined as all the vocabulary on which the study is conducted, such as individuals or things (Al-Mahmoudi, 2019, 158).

The current research community is determined by the students of the University of Babylon for the morning study and for the academic year (2022-2023), who number (26441) male and female students and for the humanitarian and scientific majors, by (11243) students by (42.5%), and (15198) female students by (57.5%), and the number of scientific specializations reached (16971) by (64%) and the number of humanitarian specialization (9470) by (36%).

Third: The sample of the research

is part of the original community units that are drawn in an appropriate systematic manner (Harris, 2003, 45). The researcher relied in determining the sample size on the equation (Stephen) according to which the sample size reached (380) male and female students by (1.43%) of the original research community and by (163) students by (43%) and (217) female students by (57%), while the number of scientific specializations from the sample (243) by (64%) and the number of humanitarian specialization reached (137) by (36%).

Research Tools

First: Self- categorization scale

To achieve the objectives of the current research, it was necessary to provide standard tools to achieve it, and after reviewing the theoretical literature and previous studies of research variables, the researcher adopted a scale (Al-Saadi, 2010), and the researcher relied on this scale for the following reasons:

- 1- The scale has been built according to the theoretical framework developed by (Turner 1979) and adopted by the researcher in self- categorization.
- 2- It is suitable for application to the study sample (university students), because it was applied to the same sample.

Description of the scale in its initial form

The scale consists of (42) paragraphs, put in front of each paragraph five alternatives to estimate the responses to the degrees of the paragraphs of the scale and are (always apply to me, apply to me often, apply to me sometimes, apply to me rarely, do not apply to me at all), take paragraphs that are in the direction of the concept (5, 4, 3, 2, 1) while paragraphs that are opposite to the direction of the concept, their degrees are (1, 2, 3, 4, 5) respectively, and therefore the lowest degree of self-categorization scale in the initial formula and the highest degree for it ranges between (42-210) degrees.

Instructions of the scale of self- categorization

The instructions of the scale as a guide that shows how to answer the paragraphs, so the researcher was keen to be the instructions of the scale clear, where the respondent is asked to answer honestly and objectively and not to leave any paragraph without an answer and that the answers are confidential and for the purposes of scientific research only and there is no need to mention the name with an example that shows how to answer.

Validity of the items of the self- categorization scale

Although the logical analysis of the paragraphs of the scale may be misleading because it depends on the subjective opinions of the arbitrators, but it is necessary in the numbers of paragraphs of the scale because it shows the extent to which the paragraph is apparently linked to the feature that was prepared to measure it (Al-Kubaisi, 2001, 17) and to verify the validity of the paragraphs of the self- categorization scale in its initial form, which consists of (42) paragraphs presented to a group of arbitrators specialized in educational and psychological sciences, measurement and psychological evaluation, which numbered (30) arbitrators to indicate the validity of the paragraphs To measure what was prepared to measure and modify what they deem appropriate and the appropriateness of the alternatives, and to analyze the opinions of the arbitrators, the chisquare has been adopted for good conformity and percentage, and each paragraph is considered valid when the value of the calculated chi-square is statistically significant at the level of significance (0.05) and the degree of freedom (1), and as a result of this procedure, all paragraphs were accepted with the amendment of paragraphs (2,3,5,7,27,36,41,42) according to the opinions of the arbitrators.

The Experiment of the clarity of instructions and paragraphs for the self-rating scale

The psychometric literature stressed the importance of verifying the clarity of the paragraphs of the scale and its instructions to the respondent so that their answers are not random or stray from the content of the paragraph (Farag, 1980, 160). The purpose of experimenting with the clarity of paragraphs and instructions of the scale is to identify the clarity of the paragraphs of the scale - language - content - and alternatives, and the time required to answer as well as the instructions for answering it in order to know its readiness for application. The scale was applied to his sample consisting of (40) male and female students were selected by random stratified method, and after conducting the experiment it became clear that the paragraphs of the scale and its alternatives and instructions were clear, while the average time taken to answer the scale amounted to (11) minutes.

The Statistical analysis of the paragraphs of the self- categorization scale

This procedure is one of the basic requirements for building a scale in psychological sciences and aims to detect the discriminatory power of paragraphs and their truthfulness coefficients, because the logical analysis of the paragraphs may not reveal their truthfulness accurately, while the statistical analysis of the degrees empirically reveals the accuracy of the paragraphs in measuring what they were developed to measure (Ebel, 1972, 405).

The statistical analysis of the paragraphs helps to examine the ability of each paragraph to distinguish between the members of the sample and to make a decision on modifying or deleting the paragraphs or maintaining them, and the stability of the test scores and the sincerity of the interpretation of the results depends on the quality of the test paragraphs and thus will help improve the quality of the scale prepared for the test (Reynolds, Lyngston, 2013, 300). The discriminatory power of paragraphs means the extent to which the paragraph is able to distinguish between those with higher levels and those with lower levels of individuals in relation to the concept measured by the paragraph (Shaw, 1967, 450).

The discriminatory force was extracted in two ways and the method of the two extreme groups and the relationship of the paragraph to the total score of the scale were neglected

The two-party method

The main objective of calculating the discriminatory power of paragraphs is to exclude paragraphs that do not distinguish between subjects and to maintain those that distinguish them (Ebel & Frisbie, 2009, 294).

Kelley (1957) believes that the percentage of (27%) is the best ratio to determine the number of members of the upper and lower groups in large samples with normal distribution (Anastasi, Uren 344, 2015) and to do so, the researcher followed the following:

- 1-Determine the total score for each of the scale forms.
- 2-Arrange the forms from the highest degree to the lowest degree (descending).
- 3-The percentage of (27%) of the forms with the highest grades was chosen, followed by a higher group, and the percentage of (27%) of the forms with the lowest grades, after which is a minimum group, as the number of forms in each group reached (103) forms, meaning that the number of forms that were subjected to statistical analysis is (206) forms

The researcher applied the T-Test for two independent samples to test the significance of the difference between the upper and lower group circles, because the calculated T value represents the discriminatory power of the paragraph between the two groups and promised the T value as an indicator to distinguish each paragraph by comparing it with the tabular value of (1.96) with a degree of freedom (204) and a level of significance (0.05) and it was clear that all paragraphs are distinctive.

Psychometric properties of the self- categorization scale

The psychometric properties of the scale are used in educational and psychological research as indicators of the accuracy of the scales, as the extraction of honesty and stability is one of the most important of these characteristics (Ebel & Frisbie, 2009, 237).

(Oppenheim, 1982) has shown that honesty indicates the measurement of paragraphs of what is supposed to be measured, i.e., related to what the test measures and the extent of its quality in measuring what it was developed for (Oppenheim, 1982, 69) and the validity of the current scale has been verified as follows:

Face Validity

Indicates that the test measures the property designed to measure, by presenting it to a group of arbitrators to decide whether it is valid or invalid, meaning when examining the scale outwardly we conclude that it measures what it was developed for (Urbina, 2014, 113) This type of honesty has been achieved by presenting the self-categorization scale to a group of arbitrators in educational and psychological sciences and psychometrics, This has also been clarified in the validity of the paragraphs of the scale.

Construct Validity

Means what we can decide that the tool measures a specific theoretical construction or a certain property as the homogeneity of paragraphs and their ability to distinguish and their correlation coefficients with the total degree are indicators of construction honesty (Reynolds et al, 2010, 97).

The sincerity of the construction was verified by conducting the analysis of paragraphs through discriminatory power, and the degree of paragraphs is linked to the total degree of the scale, and the scale that elects its paragraphs in the light of these indicators has good constructive honesty.

The stability of the Scale

Stability is one of the psychometric properties that must be verified to indicate the validity of the use of the scale as well as honesty, which makes it stronger and more durable, as the validity of the measurement depends

on the stability of its results, the fixed scale gives almost the same results if it measures the same property to be measured consecutive times (Moss, 1994, 223).

There are many methods to calculate stability, and the researcher has used two methods to extract stability:

Test method - Test-Retest

The researcher randomly selected a sample consisting of (60) male and female students, comprising (30) males and (30) females. After two weeks had passed since the first application of the scale, the researcher re-applied the same scale on the same sample, and the Pearson correlation coefficient was calculated, which represents the stability coefficient in This method, as it appeared that the value amounted to (0.81). This stability is considered appropriate when compared to the standard set by the literature on psychological measurement.

Cronbach's alpha coefficient method for internal consistency

To extract the stability in this way, the Cronbach alpha coefficient was used to extract the internal consistency of the current scale, and the results came after applying the scale to a sample of (380) male and female students of the research sample indicated that the Cronbach alpha coefficient for the scale amounted to (0.85).

Statistical indicators of the self- categorization scale

The scientific literature explained that the statistical indicators that should characterize any measure are to identify the nature of the moderate distribution that can be identified by some statistical indicators that show us the nature of the scale and what type of statistics we should use to extract the results.

Description of the self- categorization scale and its final correction

After the completion of the procedure of the psychometric characteristics of the self- categorization scale, which consists of (42) paragraphs has been placed in front of each paragraph five alternatives are (always apply to me, apply to me often, apply to me sometimes, apply to me rarely, do not apply to me at all), and thus be the highest score of the scale (210), and the lowest degree of the scale (42), and the hypothetical mean of the scale of self-categorization (126).

Chapter Four / Research Results

Identify the self- categorization among university students

To identify this goal, the self- categorization scale was applied to the final application sample of (380) male and female students, and it was found that the arithmetic mean of the grades reached (149.17) degrees and a standard deviation of (20.37) degrees, while the hypothetical average of the scale reached (126) degrees. In order to identify the significance of the statistical difference between them, the T test was used for one sample (One Sample T Test) and it was found that there was a statistically significant difference between them in favor of the arithmetic mean, where the calculated T value (22.169), which is greater than the tabular value of (1.96) at the level of significance (0.05) and the degree of freedom (379), which indicates that the study sample has a good degree of self- categorization, and the table shows that.

Table 1: showing the arithmetic mean, standard deviation, hypothetical mean, and (T) values of self-categorization

Sample	degree Of freedom	Arithmetic mean	Standard deviation	Hypothetical mean	T. value	tabular	Level of function
380	379	149.17	20.37	126	22.169	1,96	function

This result can be attributed according to the theory (Turner 1979). Where he believes that the collective awareness and the common sense of belonging to the group is the most important psychological factor in defining any social grouping or social group as a group with a common identity in the psychological sense to form a social identity, as the process of self-categorization is a basic adaptive cognitive process that takes place automatically with the aim of reducing the complexities of the world to categories that can be absorbed and understood, and without this categorization, the torrent of sweeping daily stimuli will exceed the ability of humans to process information (Hogg& Tindale, 2005, 159).

Recommendations: Based on the findings of the current research, the researcher recommends the following

- 1- Benefiting from the two research tools in future studies similar to the research concepts of samples similar to the current research sample.
- 2- Increasing interest in specialized programs for guidance and guidance in educational institutions to guide the process of self-categorization in a positive way in the formation of social relations.
- 3- Holding cultural seminars in universities to highlight the importance of research variables among university students.
- 4- Promoting environmental stimuli in universities to contribute to the formation of correct concepts of the process of self- categorization and emotional dissonance.

Suggestions

In the light of the results of the research and to complement the current research, the researcher submits the following suggestions:

- 1- Conducting studies to identify the relationship between self- categorization and other variables such as (positive orientation, self-efficacy).
- 2- Conducting studies to identify the relationship between emotional dissonance and other variables such as (thinking styles, personality factors).
- 3- Conducting a study on self- categorization among (students, non-students) at the same age to find out the impact of education on the process of self- categorization.
- 4- Conducting similar studies to the current research take other demographic variables such as: (occupation, marital status, economic level, and type of housing).

REFERENCES

- 1. Abraham, R. (1998). Emotional dissonance in organizations: Antecedents, consequences, and moderators. Genetic, social, and general psychology monographs, 124(2), 229.
- 2. Abrams, D., & Hogg, M. A. (1990). Social identification, self-categorization and social influence. European Review of Social Psychology, 1, 195–228. doi:10.1080/14792779108401862
- 3. Albar Marín, M., & García-Ramírez, M. (2005). Social support and emotional exhaustion among hospital nursing staff. The European journal of psychiatry, 19(2), 96-106.
- 4. Allen, M. J., & Yen, W. M. (2001). Introduction to measurement theory. Waveland Press.
- 5. Al-Zahir, Qahtan Ahmed (2004). Self-concept between theory and practice, 1st edition, Wael Publishing House.
- 6. Anastasi, A., & Urbina, S. (1997). Psychological testing. Prentice Hall/Pearson Education.
- 7. Anastasi, me, Yuren, Susan. (2015). Psychometrics, translated by Salah Al-Din Mahmoud Allam, Dar Al-Shorouk for Publishing and Distribution, Amman, Jordan.
- 8. Appelbaum, Steven H, Iaconi, Giulio David, and Matousek, Albert, (2007), "Positive and negative deviant workplace behaviors: causes, impacts, and solutions", Corporate governancej vol. 7 no. 5, pp. 586-598.
- 9. Aronson, E. (1999): Dissonance, hypocrisy, and the self-concept. In E. Harmon-Jones & J. Mills (Eds.), Cognitive dissonance: Progress on a pivotal theory in social psychology (pp. 105-109).
- 10. Ashforth, B. E., & Humphrey, R. H. (1993): Emotional labour in service roles: The influence,pp.94-95.
- 11. Ashforth, B. E., & Humphrey, R. H. (1995). Emotion in the workplace: A reappraisal. Human relations, 48(2), 97-125.
- 12. Ashkanasy, N. M., Härtel, C. E., & Daus, C. S. (2001). Diversity and emotion: The new frontiers in organizational behavior research. Journal of management, 28(3), 307-338.
- 13. Bakker, A. B. & Heuven, E. (2006): Emotional dissonance, burnout, and in-role perfor
- 14. Kubaisi, Kamel Thamer. (2010) . The relationship between logical analysis and statistical analysis of psychometric paragraphs, Professor Magazine, College of Education-Ibn Rushd, University of Baghdad, Issue (25).
- 15. Reynolds, Geisel, and Livingstone, Ronald. (2013) . Mastering Modern Psychometrics Theories and Methods, translated by Salah Al-Din Mahmoud Allam, Dar Al-Fikr, Amman, Jordan.
- 16. Saleh, Qasim Hussein (1997). Personality between theorizing and measurement, 1st floor, New Generation Office, Sana'a, Yemen.
- 17. Tighza, Ahmed Boziat. (2012). Exploratory and Affirmative Factor Analysis Their Concepts and Methodology, Dar Al-Masirah, Amman, Jordan.