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Proactive decisions among university students

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***Abstract*---**The current research aims to identify the proactive decisions of university students. The total research sample consisted of (800) male and female students, with (400) statistical samples and (400) final samples distributed among (8) faculties at the University of Kufa (4) faculties in specialization Scientific and (4) faculties in the humanitarian specialization, for the second and fourth stages of the scientific and humanitarian specialization for males and females for the morning study among the students of the University of Kufa for the academic year 2021-2022. One of them is for the proactive cognitive skills represented by (goal, systematic search for information, alternatives, and future vision) and the other component of the proactive personality traits represented by (initiative, striving to improve decision) and by (46) items, after extracting the validity of the two scales, and after checking the availability of characteristics Psychometrics of the two scales, were applied to the research sample, and after data collection and statistical processing using the arithmetic mean, standard deviation, percentile weight, t-test for one sample and two independent samples and a correlation coefficient b Yerson and Spearman and exploratory factor analysis and triple variance analysis, and the following is a summary of the research results that university students enjoy proactive decisions with components of proactive cognitive skills and proactive personality traits at a high level, and the researcher presented a set of recommendations and suggestions, the most important of which are

***Keywords*---**proactive decisions, academic achievement, university students

Introduction

Research problem

University students are the vanguard who are prepared in the future to occupy all educational, educational, administrative, economic, social, and political positions for society in general. And the decisions that they will issue from those sites do not affect them personally, but extend their impact to large segments of society as well as their temporal dimensions and repercussions over previous years, and Iraq suffers from a phenomenon of weakness in the level of proactive decisions, which has resulted in many problems at the educational level. educational, security, health, economic, and other fields as a result of the absence of a systematic evaluation of decision problems, which makes it possible-at least in theory-not to be able to devise detailed solutions before the problem occurs. themselves because they don't know what good decision making looks like based on the principles of decision quality. In fact, many individuals' decision-making behaviours and skills are inadequate when faced with poorly structured situations. Especially since most people do not learn to be effective decision makers or have little practise in this skill, and few are aware of their decision-making biases and deviate from the principles of decision quality, experience alone is an incompetent teacher of decision-making (2015: 123. Scopelliti et al.)

Research importance

The current research derives its importance from the nature of the variables that deal with academic reality, as the interest in improving and updating the decision-making process has become an important element in the academic process. By making the appropriate decision to confront a particular situation in light of reviewing a number of available alternatives, a comparison will be made between them (Sakhi et al., 1997: 22).

A proactive decision is a cognitive process based on a series of mental activities such as attention, remembering, visualization, and thinking that enables the individual to choose a specific alternative from among a set of possible alternatives to solve a problem or a specific situation (Al-Nuaimi, 1995: 55), provided that there is a purposeful use of the proactive cognitive skills that implicitly indicate To take a decision based on value-based thinking and some of the wise personality traits of the decision maker, which are self-initiative and striving to improve the decision. Decision-making has always attracted the attention of academics from various disciplines (Bell, Tversky & Raiffa, 1988: 341).

This interest enables individuals to meaningfully influence the outcomes relevant to them and then understand the mechanisms of decision-making, derive appropriate methods for structuring and solving decision problems, and then apply those methods appropriately. It is widely seen that the decision-making process is key to improving outcomes and thus making better decisions. Roy, 2005; Hämäläinen et al., 2013)

A proactive decision involves acting in advance of future situations as individuals look to future events in their current decisions with insight, that is, before they occur. Researchers describe this property using the adjectives "future-centered," "anticipatory," and "forward-looking" (Grant and Ashford 2008 p.3-34), and those who take this approach have the opportunity to anticipate and evaluate opportunities before others. They specialise in adapting to new conditions. Due to the structures of systematic thinking, they easily set their goals and reach their conclusion. They try to create new environmental conditions by identifying conditions that are inappropriate for their values in the environment in which they live because they are geared towards the change they want (Van & De, 2012, 58).

The research objectives

Proactive decisions among university students

Research Methodology

The descriptive approach is based on the careful monitoring and follow-up of a particular phenomenon or event in order to identify it and reveal the relationship between its elements and interpretation in terms of content, to achieve results and generalisations that help in understanding and developing reality (Alian, 48: 2001). For this, the researcher used the descriptive-relational approach, where this type is useful in estimating the relationship between two or more variables on the one hand, and knowing the direction of this relationship on the other hand. In other words, to what extent the variables are related to each other, is the link partial or total, negative or positive (Daoud and Abdul Rahman, (1990: 185).

The population of the research

The current research community consists of students of the University of Kufa with its scientific and humanitarian branches, for both sexes, and for the second and fourth stages in the Najaf Governorate for the academic year (2022–2021), and their number is 28,466, distributed among 21 colleges, at (11), scientific colleges, at a rate of (52%), and (10) humanities colleges (48%), and the total scientific specialisation reached (10864) male and female students (38%), while the number of humanitarian specialisation reached (17542) (62%), while the number of males reached (11154), (39%), while the number of females reached (17312) (61%).

The Samples of Research

The researcher used two samples in her current research; one of them for statistical analysis, consisting of (400) male and female students from the research community of (28,466), and the final application sample of (400) male and female students was chosen, based on the Steven equation (Steven, 2012), and the research sample was withdrawn from eight The faculties were chosen randomly and they are (administration, economics, jurisprudence, law, arts, science, engineering, nursing, planning) and the sample of the research was chosen by a random stratified sample method with a proportionally distributed

(propositionally distributed) where this type is more accurate. A representative of the research community, it can also be used in the case of comparison between different societies or classes (Alayan and Ribhi, 2000: 147). The research sample was distributed in relation to the scientific specialization, where they numbered (220) male and female students at a percentage of (2%), by (4) colleges and by a percentage of (19%), and as for the humanitarian specialization, their number was (180) male and female students, at a rate of (1%), by (4) colleges and at a rate of (19%).

The search tool

For the purpose of measuring the variables of the current research (proactive decisions and emotions of academic achievement), two tools for measuring these variables are required that have psychometric characteristics as follows:

Proactive decisions

After reviewing the previous studies and reviewing the literature, the researcher did not find (to her knowledge) any scale at the Arab and international levels commensurate with the nature of the current research sample, so it was necessary to build a scale for proactive decisions, as there are specific scientific steps to build thescale.e

Defining the theoretical concepts of the Proactive Decision Scale
The researcher in this regard adopted the Siebert and Kunz model (Siebert & Kunz, 2016), as the components of the proactive decisions scale were identified (proactive cognitive skills and proactive personality traits), and they were defined in the light of the (Siebert and Kunz) model:

Cognitive abilities that are proactive

acquired behavioural manifestations of proactive activity in decision-making processes that depend on value-oriented thinking and thinking processes represented by (goals, systematic search for information, systematic identification of alternatives, future vision). This component consists of four sub-areas:

First, the goal: proactive individuals have a vision of what they want to achieve and are guided by values. They achieve their goals in life by striving to achieve goals that are in line with their vision.
Second, the systematic search for information: it is proactive individuals' effective concern for information that they seek systematically and that aids them in evaluating alternatives.
Third: Alternatives: These are the different ways that proactive people use to reach their goals. They try to find more and better ways to reach their goals so they can reach them.
Fourth: The future vision is for proactive individuals to anticipate future events and act before they occur in order to prevent future problems.

Proactive personality traits

acquired behavioural manifestations of proactive activity in decision-making processes that depend on value-oriented thinking and goal-based thinking processes; systematic search for information; systematic identification of alternatives; and future vision; This component consists of two sub-domains:
First, initiative: is when people take the lead and do something to change their environment.
Second, striving to improve proactive decision-making: Proactive people strive to improve their decision-making position.864_877 (Siebert and Kunz, 2016)
In light of the instructions, 54 paragraphs were formulated and distributed on the scale. And Table 1 illustrates this

Table (1) Distribution of items on the proactive decision scale

Proactive and cognitive skills		Proactive personality traits	
Domains	Number of paragraphs	Domains	Number of paragraphs
Objective	10	Initiative	10
Systematic information search	6	Attempting to improve proactive decision making	10
Alternatives	9		
Future Vision	9		
Total	34		20

Alternative Response

The answer alternatives were developed based on the five-graded Likert method because it provides the opportunity for the examinee to indicate the degree of rejection or approval for each paragraph of the scale, and because this method does not require much time and effort (Abdel-Fattah, 206: 2013).
For each paragraph in the scale, five alternatives were placed: (always, often, sometimes, rarely, never) and their scores (1,2,3,4,5), respectively, in that the condition of the items was positive, and the scores reflected the fact that the condition of the items was negative, 5,4. 3,2,1).

Validity of scale items

For the purpose of achieving this, the paragraphs in their initial form, amounting to (54) paragraphs of Appendix No. (), were presented to a number of arbitrators in the Department of Educational and Psychological Sciences, who numbered (36) arbitrators in Appendix No. () in order to issue their judgments on the validity of these paragraphs and their suitability for university students, as well as the integrity and wording of the paragraph for the purpose for which it was developed. The calculated values of (x2) for the paragraphs ranged between 18.7 and 32.1, which is higher than the tabular value of (x2) of (3.84) at the level of significance (0.05) and the degree of freedom ((1). Accordingly, these paragraphs were counted. valid, as the (x2) values calculated for the rest of the paragraphs were less than the tabular value of (3.84), so it was considered invalid and was deleted.

Statistical Analysis of Proactive Decision Scale Paragraphs

In order to perform the statistical analysis, the Proactive Decision Scale was applied to a sample of (400) male and female students who were chosen by the stratified random method with a proportional distribution and from both scientific and humanitarian specialisations for the second and fourth stages.
After correcting the scale and collecting and analysing data, the following methods were extracted:

Discriminatory power in the two extreme group styles

We find that all the paragraphs of the proactive decisions scale are distinct, as the calculated t-values range between 3.83 and 16.86, which is higher than the tabular t-value of 1.96 at a degree of freedom (214) and at a significance level of (0.05), which means that the paragraphs of the proactive decisions scale have the ability to distinguish the trait to be measured among respondents.

Internal consistency

To find out whether each of the scale's paragraphs goes in the same path as the scale, the researcher used three methods to check the internal consistency. These methods were represented by finding the correlation between each of the following:

Relationship between the degree of the paragraph and the total degree of the proactive decision scale

To verify this method, the researcher used the Pearson Correlation Coefficient to find the correlation between the degree of each paragraph of the scale with the total score of the scale and for the same sample that was used in the statistical analysis of (400 male and female students). (0.22-0.66) is acceptable when it is statistically compared with the tabular value of (0.098) at the significance level (0.05) and the degree of freedom (398). This indicator indicates that the paragraphs can distinguish in the attribute measured by the examinees, and all of the paragraphs were retained.

Correlation of the degree of the paragraph with the total degree of the field to which it belongs

The researcher used the Pearson Correlation Coefficient to find the correlation between the degree of each paragraph of the scale with the total score of the scale. For the same sample that was used in the statistical analysis of (400 male and female students), we find that the values of the Pearson correlation coefficient range between (0.22-0.69), which indicates that all the correlation coefficients for the items of the Proactive Cognitive Skills Scale are statistically significant when compared with the tabular value of (0.098) at the significance level (0.05) and the degree of freedom (398). on all paragraphs.

The degree of the domain is related to the domain to which it belongs

Use the Pearson correlation coefficient to find the correlation between the degree of each domain and their total scores in that domain to which they belong and for the same sample that was used in the statistical analysis.

Exploratory Factor Analysis of the Proactive Decision Scale

To achieve this kind of honesty, the researcher dealt with the components of preemptive decisions as the main dimensions of the original model adopted in this research. For this reason, the exploratory factor analysis of the scale was carried out to find out the distribution of the items and their saturation within the component.

Exploratory factor analysis of the proactive decision-making measure, which is made up of proactive cognitive skills

The value of the (Kaiser-Meyer-Ohlen) test is (0.88) compared with (0.50), the cut-off score, which is higher than the cut-off score, which indicates that the sample size is suitable for factor analysis. The result of the exploratory factor analysis of the preemptive cognitive skills scale revealed four factors and that these factors explain the amount of (30.72%) of the total variance, and thus the first factor represents the field (the goal) on which paragraphs (1–9) are saturated, with the exception of paragraph (3), which is saturated on more than one factor with close saturation values, so it raises the scale, and the second factor represents the field (alternatives) on which paragraphs (16–23) are saturated, with the exception of paragraph (24), which is saturated on more than one factor with close saturation values, so it raises the scale, and thus the third factor represents the field of (future vision) on which the paragraphs (25-32) are saturated, and thus the scale is considered constructively true and that the number of the scale's 30) in its final form, with Deleted

Exploratory factor analysis of the measure of proactive decisions and its parts (traits of being proactive)

The value of the (Kaiser-Meyer-Ohlin) test is (0.88) compared with (0.50), the cut-off score, which is higher than the cut-off score, which indicates that the sample size is suitable for factor analysis. From the above table, it is clear that the result of the exploratory factor analysis of the proactive decisions scale with its component (proactive personality traits) resulted in two factors and that these two factors explain the amount of (34.01%) of the total variance. -9) Except for paragraph (8), which is saturated on more than one factor with close saturation values, so it raises the scale, and the second factor represents the field (striving to improve the decision) on which paragraphs (10–18) are saturated, except for paragraph (12), which is saturated with more than one factor. The scale is raised, and thus the scale is considered constructively true, and the number of the scale's paragraphs is sixteen (16) in its final form, with the deletion of the two paragraphs (8–12).

Psychometric properties of the Proactive Decision Scale

Validity Scale

It is the ability of the test to achieve the purpose for which it was prepared or actually measure what it was prepared to measure, and sincerity is one of the important conditions that must be met in the data collection tool (Abbas and Shehab, 140:2018). The validity of the scale has been verified through the following indicators:

Validity Face

The general appearance of the test, in terms of the type of vocabulary, how it was formulated, and its clarity, as well as its instructions, includes the possibility of the test being suitable for the purpose for which it was developed (Al-Imam et al., (1990:126).

Construct Validity

means the extent to which the test measures the formation of a hypothesis or psychological concept. This type of validity depends on a broader description and requires more information about the behavioural characteristic to be measured (Ahmed, 88:2004).

Scale stabilisation

It means that the measurement tools have a high degree of accuracy in perfection and consistency in the information they provide us about the behaviour of the examinee (Majid, 124:2014). The stability was verified in two ways:

Half-segmentation method

Halftone segmentation is one of the methods that fall under the so-called internal consistency method. And in order to calculate the stability in this way, the scale was applied to a sample of 40 male and female students, and after correcting the scale and dividing the paragraphs into two parts, an odd part and an even part, equivalence was made between them. Then the correlation coefficient was calculated for each of the main dimensions of the preemptive decision scale and for the scale as a whole, and then they were corrected by the Spearman-Brown equation as shown in Table (2).

Table (2)
The stability coefficient of the split-half method of the Proactive Decision Scale

Variables	Pearson's Correlation Coefficient	Spearman-Brown Correction Equation
Proactive cognitive abilities range	0,75	0,86
Personality traits that are	0,57	0,72

proactive		
Overall scale	0,69	0,82

Method for Cranbach Alpha

Cronbach found that this coefficient is an indicator of equivalence; that is, it gives good estimated values of the equivalence coefficient along with internal consistency or homogeneity (Allam, 2000: 165). In order to find the reliability coefficient of the proactive decisions scale with its components (proactive cognitive skills and proactive personality traits), (100) statistical analysis forms were randomly selected, and then the Facronbach equation was applied, and Table (3) shows the stability coefficient extracted by the Facronbach method.

Table (3)
The stability of the proactive decision scale by the Facronbach method

Variables	Proactive knowledge	skills Proactive personality traits	scale as a whole
Value of the Stability Coefficient	0.83	0.85	0.89

Describe the Proactive Decision Scale in its final form

After checking the psychometric characteristics, the scale became in its final form, consisting of 46 items, with (30) items related to proactive cognitive skills and (16) items related to proactive personality traits. The items were formulated in the form of declarative statements with five alternatives (always, often, sometimes, rarely, never) and their scores (1,2,3,4,5) respectively for the items that go in the direction of measuring the concept and vice versa for the items that go in the opposite direction of the concept, which are two items (14, 41) and that the highest score for the scale is (230) and its lowest score is (14). It is (46) and an appendix () that includes the scale in its final form.

Results

The first goal is to identify the proactive decisions of university students

To achieve this goal, the measure of proactive decisions (proactive cognitive skills and proactive personality traits) was applied to the research sample of 400 male and female students, and after calculating the arithmetic mean and the total standard deviation of the scale and dimensions, it was shown in the following figure. Using the t-test for one sample, it was found that the difference was statistically significant and in favour of the arithmetic mean in favour of the proactive decisions and their components (proactive cognitive skills, proactive personality traits), as the calculated t-values were (30.22, 25.58, 36.01), which is higher than the value of The T-tabular value of (1.96) with a degree of freedom (399) and a level of significance (0.05) and Table (4) illustrates this.

Table (4)
The T-test for the difference between the sample mean and the hypothetical average of the Proactive Decisions Scale with its components (proactive cognitive skills and proactive personality traits)

Variables	The number of items	Arithmetic mean	Standard deviation	Hypothesis mean	Calculated t-value	Tabulated t-value	The degree of freedom	Significance level
Cognitive Proactivity	30	114.72	16.35	90	30.22	1.96	399	D
Proactive personality traits	16	59.69	9.14	48	25.58			D
scale as a whole	46	174.40	23.84	138	30.70			D

Conclusion

The result in Table (25) indicates that the research sample has proactive decisions with its components, proactive cognitive skills, and proactive personality traits at a high level. University students have a future vision because they are prepared to move to a new stage after graduation, and the environment of college enhances these proactive skills and thus stimulates the traits within them. Also, this result is consistent with what was indicated by the approved theoretical framework, as Siebert and Koons (2016) believe that the sample members (university students) have the ability to take a proactive decision represented by proactive cognitive skills (the possibility of setting a goal and the ability to search for information in advance systematically and generate high-quality alternatives and anticipate events in advance (this is represented by the future vision) where previous research confirmed that these proactive cognitive skills have hardly noticeable effects if they are used in isolation. of proactive decision, as the authors argue that without proactive personality traits, there would be no reason for an individual to acquire proactive cognitive skills, and that proactive individuals actively research, take initiative, and follow through until they achieve their goals (Bateman and Krant 1993). (Siebert et al., 2020).

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