# Thinking Center Patterns and its Relationship to Academic Buoyancy among Students of Al-Mustaqbal University College

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## Abstract

The student's academic success depends on the extent of their ability to face obstacles, challenges, difficulties and academic setbacks in the normal course of the daily academic life and guide their thinking towards innovative solutions through academic buoyancy: which represents the students' ability to deal with their problems and depend on the positive aspects of their character to help them overcome stress, anxiety and fear of failure in one way. And on the other way, it contributes to their assimilation of scientific progress, technological and technical development, information processing, and the achievement of excellence and success. To achieve the objectives of the research, the researcher used the descriptive correlational approach, and the sample included (373) male and female students who were chosen according to the Stephen Thomson equation and distributed according to a proportional random stratified distribution from Al-Mustaqbal University College. The Risso-Hudson scale of the nine character types in the Enneagram system and the Pisang scale (2016) for academic buoyancy were applied to the research sample and using the appropriate statistical methods for data processing, the results concluded that the students of Al- Mustaqbal University College have academic buoyancy, which is related to the patterns of the thinking center. In light of this, the researcher developed a set of recommendations and suggestions.

**Keywords**: academic buoyancy, Enneagram system and the Pisang scale.

## INTRODUCTION

Dealing with clear and specific character patterns saves a lot of effort and time if we deal with character according to infinite dimensional connections, factors, traits and qualities scattered here and there and without providing integrated causality in understanding the behavioral phenomenon. There is no doubt that the scientific study of the human character as a behavioral phenomenon is significantly important.

Many researchers have gone to study character according to their theories to classify it within the dimensions, factors or traits that make up the human character as a whole. Among these systems that were put forward in the field of character patterns is the Enneagram model that appeared in (1996), which deals with the human character according to nine patterns that differentiate between them in terms of the common and similar characteristics and traits within the same pattern and different from the rest of the patterns, it is divided into three main centers which are: the center of feelings, the center of thinking, and the center of instinct (Riso, 2003). Shou (2002) emphasized that dealing with the theory of Enneagram as a whole by addressing the nine character types or as a central one concerned with one of the Enneagram centers does not affect the results obtained by the researcher (Shou, 2002). In most cases, social and psychological studies have concluded that knowing the nature and pattern of an individual's character plays a major role in guiding them to solve the problems they encounter in their daily life. Most educators unanimously agreed that the reason for academic achievement is due to the student's character pattern when facing problem. Along with Psychologists, who see the importance of enhancing positive feelings and narrowing the negative ones, as well as increasing the behavioral capacity of individuals in order to increase the adaptability and flexibility when going through stressful situations (Al-Osamat and Al-Mualla, 2020). Smith (2016) pointed out the importance of academic buoyancy, as it represents the student's ability to return to a state of stability and emotional balance after being affected by some stressful events, such as low grades or the inability to complete the academic tasks assigned to them (Smith, 2016). Therefore, the researcher's idea came to study the relationship of thinking center patterns and their relationship to academic buoyancy.

## **Research Problem**

character patterns are related to the behavioral manifestations that emerge from the individual from their lifestyle, their living pattern, their relationships with others, in addition to the surrounding environment and all the other activities (Krieford, 2003). According to Abdel-Khalek (1994), each individual has relatively stable character traits that affects their dealing with stressful situations, and they vary according to Individuals (Abdul Khaleq, 1994).

It is required from the college student who faces pressures and academic setbacks that may lead them not to complete the learning and teaching process, and in order to achieve optimal performance among students that face these challenges and academic difficulties that impede their progress and not to be dragged to the bottom of anxiety, failure, weak academic compatibility, narrow thinking and stereotyping in the face of adversity and their acquisition of ability to deal with a large number of challenges that they face constantly during their academic life. The college student must have the ability to float above these obstacles and direct their thinking towards innovative solutions through academic buoyancy, which represents the ability of students to deal with challenges, difficulties and academic setbacks that they face in their daily academic life, for example: low grades, exam stress, difficulty of the academic tasks assigned to them, and low motivation level (Martin & Marsh, 2008).

Martin and Marsh (2009) clarify that academic buoyancy is related to thinking patterns, People with high levels of buoyancy use positive thinking patterns to deal with negative experiences, difficult situations, and setbacks: this permeates their sense of positive selfesteem (Martin & March, 2009).

## Importance of Research

The researcher believes that the significance of this research is centered on the importance of the concept character pattern and its profound impact on all forms of human behavior. Knowing the character pattern of university students can lead to the development of an appropriate mechanism that enables us to determine the high level of scholastic achievement of the student facing the academic challenges and difficulties.

## The research aims to:

• Identify the patterns of thinking center among the students of Al- Mustaqbal University College

• Identify the academic buoyancy of the students of Al- Mustaqbal University College

• Correlational relationship between the center of thinking and academic buoyancy among the students of Al- Mustaqbal University College

## **Define Terminology**

First: Thinking Center:

One of the three centers in the theory of Enneagram, which consists of the nine-chart of character types (the investigator, the loyal and the enthusiast) and it is called the center of the actual mental patterns. Within the center, the individual deals with others and the external environment through their actions, that is, their responses and behavior are shaped by the actual cognitive character, the ability to be working, planning and mental visualizing (Fredman, 1996).

Second: Academic Buoyancy

The student's ability to withstand pressure and respond to adapt to the setbacks they face while studying (Martin & Marsh, 2008).

#### **Theoretical framework:**

Riso (1998) considers that the theory of Enneagram proposes a cellular system, based on a cellular matrix  $(3\times3)$  of nine character patterns, and these nine patterns are distributed over three centers that make up the human character (Riso, 1998). As shown in Figure (1)



Figure (1) shows the three parts of the character, distributed among the nine character patterns (Riso, 1995).

The Enneagram theory considers that the human character consists of three centers, which are the center of feelings, the center of thinking, and the center of instinct, and each of these three centers contains three patterns of character (Riso, 1998), and these three centers that make up the human personality interact dynamically with each other, not antistatic. As the patterns (helper, achiever, and individualist) are in the center of feelings, patterns (investigator, loyal, and enthusiastic) are in the center of thinking, and the remaining three patterns (challenger, peacemaker, and former) are in the center of instinct (Riso, 1996).

Riso (2002) mentions that there are a number of considerations that must be taken into account when dealing with the concept of pattern in the Enneagram system, namely:

1- People do not change their character pattern from one to another, but the change that occurs remains within the same pattern and in three areas of the same pattern (the healthy side - the average side - the unhealthy side). 2- The description of character patterns is universal, and not specific to a particular gender or type.

3- Not all of the characteristics and traits of the pattern remain visible and active all the time, but those characteristics and stereotype behavioral traits vary by appearing in a consistent manner, depending on the healthy, average and unhealthy aspect of the same pattern, and according to the active environmental situation.

4- There is no pattern better than pattern, each pattern holds an evaluation, an acceptance and sovereignty based on the environmental and civilizational requirements and the nature of the active and influential situation in that environment. There is a pattern of character that is preferred more than others in certain societies and not in others.

5- The differences in character patterns between individuals in different societies, as one pattern prevails in a particular society without another, and it is mainly due to many factors related to heredity, family and social upbringing, especially childhood experiences. As well as the process of social reward that enhances the presence and emergence of this pattern of character without any of the other eight patterns, and not for the preference of that pattern or its superior value (Riso, 2002).

## Firstly: Thinking Center

1-Investigator Pattern: Individuals in this pattern replace action with thinking, and their ability to act remains weak and they face difficulty in finding an end to information and knowledge as they desire. The psychological processes of this pattern are mental openness and original thinking. While the positive potentials are concentrated in curiosity or inquisitiveness, perceptiveness, knowledge acquisition, and creativity, in addition to originality, and technical expertise. As for the negative aspects, they can be summed up in preoccupation with meditative theorizing, emotional isolation, whimsicality, and social isolation (Riso, 1995).

2- Loyalist Pattern: Individuals in this pattern move away from action or in their ability to act independently of others. The psychological processes of this pattern of character are characterized by their focus on commitment, integration or social union, and trust. As for their positive potentials, its shown that they are hard-working, distinguished by loyalty to others, and sacrifice with a lot of giving. As for the negative potentials, they are dependence or dependence on others, doubt, love of fighting, as well as feelings of inferiority, anxiety, duplicity and contradiction (Riso, 1995).

3- Enthusiastic Pattern: Individuals in this pattern are excessively emotional and use their abilities and energies and strive to get busy in order to avoid feeling anxious. The owners of this character pattern, according to what Riso (1996) mentions, have mentioned that they have psychological processes that revolve around enthusiasm and practical behavior. As for the positive potentials, they are responsiveness, productivity, and the desire for change and diversity. As for the negative ones, they lie in excessive activity, superficiality, impulsivity, excessiveness, and evasion (Riso, 1996).

The Concept of Integration and Disintegration among the Nine (dynamic) Patterns:

Cory (2000) points out that the nine character patterns in the Enneagram theory interact with each other dynamically and do not take the character of static classification. In addition, through that integrative and disintegration relationship, they reflect the forms of psychological growth, as well as deterioration and decay to which the character is exposed during the life of the individual (Cory, 2000).

Palmer (1988) mentions that the patterns share what she called a sequence, expressing two directions, the first of which refers to the state of health and self-realization, while the second direction refers to the unhealthy state and neurosis for each of the nine patterns. In the state of health and in the absence of stress, the individual tends in an integrative way to temporarily take (borrowing) from the characteristics and health traits of the pattern with which shares the direction of integration (Palmer, 1988).

Hurley & Dobson (1991) indicate that the individual in the character pattern from the average to the unhealthy side when exposed to pressure in a dis integrative way may take from the behavioral characteristics of the pattern that follows in the sequence, which are as follows: reformer - individual- helper - challengerinvestigator- Enthusiast - Reformer (Hurley & Dobson, 1991).

## Secondly: Academic Buoyancy

The concept of academic buoyancy falls within the scope of positive psychology and the student's possession of positive feelings that lead them to psychological growth and achieve happiness. Positive psychology contributes to the expansion of positive feelings at the moment of thinking and action based on the student's permanent personal resources. Thus, the concept of academic buoyancy focuses on the individual's response to daily challenges, starting with their presence in his daily school life. Academic buoyancy varies from one individual to another according to the characteristics and skills of the character and according to environmental variables. (Martin & Marsh, 2008).

Many experimental researches have been conducted on academic buoyancy by Martin and his colleagues and their students, where they made many structural models and experimented with these models to understand and theorize the concept of academic buoyancy. (Martin,2014).

He found a set of behaviors that can be predicted through students' academic buoyancy and affect their achievement. These behaviors are intermediate variables between academic buoyancy and academic achievement that create in the individual attitudes towards good academic performance, which he called academic orientations. and among these trends are personal behaviors (self-esteem and satisfaction with life) and group behaviors (task enjoyment and peer relationship) (2006, Martin & Marsh).

Martin and Marsh proposed the concept of academic buoyancy to face setbacks, challenges, pressures and problems as part of the daily life of most students. These daily challenges require students to have what is called academic buoyancy to face the specter of drowning as a first step for the student to appear and not fail academically to continue crossing to safety. In the meantime, the student swings up and down until he faces the simple daily academic challenges and is freed from them by overcoming them. Examples of the daily study challenges that the student encounters at the university and requires academic buoyancy from them are: competition in the classroom, exam pressures and low grades. All of which threatens the student to take him down, and here lies the importance for the student to learn how to buoyancy academically by facing these challenges so as not to overcome them and bring them down to the bottom of failure. Universities are the institutions in which academic buoyancy appears as a mean to face the daily academic challenges. There is a need to understand the academic buoyancy behavior. whereby these challenges are dealt with, students are able to overcome these daily academic challenges, and through them we can learn a lot in order to understand and improve the ability of students who cannot overcome such problems and challenges and perform inappropriately so that they can face these challenges (Martin & Marsh, 2009).

Martin and Marsh explain that there are two aspects of academic buoyancy:

• The first aspect: students should have high academic buoyancy. These students do not respond to failure and have strategies to face They have the situation. (effort or perseverance, confidence, academic selfefficacy, control, use motivation strategies, study participation, coordination and commitment) and they will be more attentive to challenges, increase positive beliefs, and raise scholastic achievement.

• The second aspect: low academic buoyancy among students, so the student's reaction is introverted (such as withdraw) and the competency beliefs are negative (such as expectation of failure), so the student believes that anxiety is the effective mean of facing and thus leads to more threat, and their scholastic achievement decreases (Martin & Marsh, 2009).

Martin found, through many of his studies, to a set of psychological and educational factors related to academic buoyancy and which lead the student to enroll in university. Among these factors are what is at the lower levels and what is at the higher levels. These factors are:

• Positive Orientations for Cognitive Conditioning: they include positive academic orientations at the least level. Martin found that there are three main constants for academic orientations which are: academic self-efficacy, the orientation to the goal of mastery, and its important values. Research has shown that students who have academic buoyancy have higher levels of academic self-efficacy, orientation to the goal of mastery and important values. • Positive Attitudes for Behavioral Adaptation: It includes positive academic orientations at the higher level. such as self-regulation, perseverance, planning and management. Studies have proven that students who have academic buoyancy insist on trying to understand or reach solutions to difficult problems, plan their university life and duties, monitor their progress, and use their administrative and organizational skills to find how, when and where the best solution is.

• Negative Scholastic Attitudes for Cognitive Conditioning: It includes negative scholastic attitudes at the lowest level. Martin found that anxiety, avoidance of failure, and control are related to academic buoyancy. These attitudes deal with how students feel before and during a particular task. Anxiety was found to be inversely correlated with academic buoyancy. Students who endorse goals that focus on avoiding failure known as performance goal avoidance are also less likely to have academic buoyancy and prosperity. Martin and Marsh also found that students with low levels of control, unsure of how to do well and often feeling helpless when doing college assignments, have low levels of academic buoyancy.

• Negative Scholastic Attitudes for Behavioral Adaptation: These include negative scholastic attitudes at the higher level that include students' failure to self-regulate and withdraw. Martin found that academic buoyancy correlates negatively with these attitudes as these students engage in activities that reduce chances of success at university, such as postponing tasks, withdrawing, not go to university in general, and accept failure. (Martin & Marsh, 2008). Academic Buoyancy Areas:

Piosang (2016) refers to areas of academic buoyancy and can be illustrated as follows:

1- Self-efficacy: It means the student's ability to understand and perform well in academic tasks and do the utmost in his power to meet challenges and perform academic tasks.

2- Uncertain control: that is, the student's lack of certainty about how to perform tasks appropriately.

3- Anxiety: the feeling of tension and uneasiness when thinking about performing academic tasks and taking exams.

4- Academic Integration: i.e. participation, integration, enjoyment and perseverance in performing academic tasks.

5- The Student-Teacher Relationship: that is, the relationships between students and their teachers, and the way they communicate and respect them. (Piosang, 2016).

## **Research Methodology**

Research sample:

The research sample consists of (373) male and female students who were chosen from the research community according to Stephen Thomson equation from the students of Al-Mustaqbal University College the morning study for the academic year (2021/2022) and for all departments. Their ages ranged between (18-25) years, with an average age of (21.5) and a standard deviation of (2.011) and the sample was distributed in a stratified random manner according to the Cochran equation. The table below shows additional details.

Table (1) Sample Distribution

their ratio		Gender					
Centennial	Total	their ratio Centennial	female	their ratio Centennial	male	Specialization	
89%	333	39%	144	51%	190	Scientific	
11%	40	3%	10	8%	29	Humanity	
100%	373	41%	154	59%	219	Total	



Figure (1) Relative sample distribution

#### **Research Tools**

#### First: Thinking Center Scale

The researcher adopted the Risso-Hudson (1996) scale (RHETI), which consists of (96) items,(32) items for each pattern, and the researcher did not rely on the scale as a whole because most of the previous studies focused on one center of personality patterns according to the Enneagram model. The scale has a high level of honesty and stability, and it has been translated into Arabic in order to apply it to the research sample, which amounted to (373) male and female students, with the adoption of translation validity procedures in terms of presentation to several arbitrators and experts specialized in Arabic and English.

<sup>1</sup> 
$$n = \frac{NP(1-P)}{(N-1)\left(\frac{d^2}{z^2}\right) + P(1-P)}$$
  
<sup>1</sup>  $ni = n\left(\frac{Ni}{N}\right)$ 

The researcher provided the research sample with instructions to the scale and that the answer will be limited to (yes / no) and will be confidential and is only for scientific research purposes.

## Scale validity: (constructive validity)

The main objective of internal consistency is to know whether each item of the scale measures the same behavioral dimension that the scale measures, thus giving an indication that each item of the scale is going in the same path as the scale with all its items (Allen & Yen, 1979). It has several methods:

• Item correlation method with the total score of the scale: The researcher verified it by using the Pearson correlation coefficient to extract the correlation between the scores of each item and the total score of the scale. The results showed that all correlation coefficients are statistically significant at the significance level (0.15) and degree of freedom (371) when compared with the value of Pearson's tabular value of (0.198), while the values of Pearson's correlation coefficient ranged between (0.135-0.589).

• The method of linking the item to the degree of field to which it belongs: the researcher used the Pearson correlation coefficient to find the correlation between the scores of each item of the scale with the total score of the scale, and after statistical treatment, the values of the correlation coefficient for the items were higher than the value of the Pearson tabular coefficient of (0.098) at the level of significance (0.05) and a degree of freedom (371), where the values of the first pattern(the investigator) ranged from (0.333-0.688) the second pattern (the loyal) (0.380-0.669) and the third pattern (the enthusiast) (0.186-0.649).

Table (2) values of the correlation coefficients for the item's relationship with the total score of the scale and the item's relationship with the domain to which it belongs

Enthusiast	Loyalist	Investigator	Thinking Center	Item number
		0.597**	0.470**	1
		0.435**	0.297**	2
		0.488**	0.403**	3
		0.427**	0.346**	4
		0.362**	0.281**	5
		0.361**	0.248**	6
		0.324**	0.148**	7
		0.319**	0.215**	8

	0.328**	0.394**	9		0.186*	0.199*	43
	0.317**	0.377**	10		0.146**	0.167**	44
	0.388**	0.199**	11		0.218**	0.103*	45
	0.389**	0.214**	12		0.377**	0.144**	46
	0.387**	0.251**	13		0.472**	0.260**	47
	0.343**	0.185**	14		0.150**	0.168*	48
	0.372**	0.178**	15		0.181**	0.172*	49
	0.398**	0.243**	16		0.172**	0.106*	50
	0.402**	0.284**	17		0.151**	0.166*	51
	0.377**	0.277**	18		0.195*	0.112*	52
	0.516**	0.389**	19		0.115*	0.114*	53
	0.317**	0.279**	20		0.161*	0.138*	54
	0.184**	0.192**	21		0.190**	0.117*	55
	0.191*	0.151*	22		0.285**	0.119*	56
	0.174**	0.158*	23		0.207**	0.127*	57
	0.192*	0.109*	24		0.215**	0.148*	58
	0.233**	0.192*	25		0.146**	0.178*	59
	0.101*	0.116*	26		0.111*	0.115*	60
	0.192**	0.176*	27		0.236**	0.167**	61
	0.282**	0.464**	28		0.178**	0.15*	62
	0.153**	0.322**	29		0.155**	0.156*	63
	0.148**	0.134**	30		0.174**	0.267**	64
	0.249**	0.181**	31	0.440**		0.281**	65
	0.183*	0.103*	32	0.357**		0.267**	66
0.387**		0.142**	33	0.440**		0.281**	67
0.481**		0.258**	34	0.401**		0.240**	68
0.481**		0.258**	35	0.379**		0.292**	69
0.175**		0.106*	36	0.415**		0.387**	70
0.241**		0.116*	37	0.374**		0.302**	71
0.143**		0.118*	38	0.401**		0.240**	72
0.191*	•	0.240**	39	0.379**		0.292**	73
0.216**	•	0.292**	40	0.415**		0.387**	74
0.252**	-	0.387**	41	0.374**		0.302**	75
0.162**		0.302**	42	0.236**		0.261**	76

0.191**	0.195**	77	0.374** 0.302** 92
0.210**	0.208**	78	0.236** 93
0.152**	0.166**	79	0.191** 0.195** 94
0.136*	0.123**	80	0.208** 95
0.357**	0.267**	81	0.152** 0.166** 96
0.440**	0.281**	82	* Significance at (0.11) ** Significance at
0.357**	0.267**	83	(0.15)
0.440**	0.281**	84	The method of correlation of the degree of the field with the total degree of the scale; the
0.401**	0.240**	85	researcher extracted the correlation matrix to
0.379**	0.292**	86	find the correlation between the degree of each field of the scale and the total degree of the
0.415**	0.387**	87	scale and found that all the values of the
0.374**	0.302**	88	correlation coefficients between the field and the total degree of the scale are higher than the
0.401**	0.240**	89	tabular value of the correlation coefficient
0.379**	0.292**	90	(0,098) at the level of significance $(0.05)$ and degree of freedom $(371)$
0.415**	0.387**	91	

Table (3) shows the values of the correlation coefficients The degree of the field in the total degree ofthe scale

Thinking Center	Enthusiast	Loyalist	Investigator	
			1	Investigator
		1	.265**	Loyalist
	1	.307**	.271**	Enthusiast
1	.774**	.634**	.740**	Thinking Center

\*\* Significance level at 0.15

Cronbach's Alpha equation:

To calculate the stability in this method, the researcher relied on the sample scores on the

Table (4) values of stability coefficients for each pattern

table below.

Thinking Center	Enthusiast	Loyalist	Investigator	The Pattern		
0.738	0.74	0.75	0.71	Stability coefficient value		

From the observation of the above table, we find the values of the stability coefficients by Alpha Cronbach method for the patterns of the thinking center and the scale in an overall high form, meaning that the scale and its subdimensions possess high stability. Second: Academic Buoyancy

After reviewing many studies and literature that examined academic buoyancy, the researcher adopted the Pisang scale (2016) for academic buoyancy, and after translation procedures, its validity and matching the items with their psychological and linguistic meanings, the

Thinking Center scale as a whole and on the subscales of the three patterns, as shown in the

items were presented in their initial form and numbered (50) items with five alternatives according to Likert grading to a group of arbitrators and after collecting the opinions of the arbitrators and analyzed it. It was reached to retain all the items of the scale that have an agreement percentage of (70%) or more and a value greater than the tabular value of the Chisquare test for good matching which is (3.84). All items obtained a high percentage of agreement and a value higher than the value of the chi-square test, and some arbitrators referred to making linguistic modifications to some of the items.

#### Factor Validity:

The researcher adopted the method of exploratory factor analysis (EFA) to detect the factorial structure of the variable and the underlying factors to obtain credibility, whether in terms of quality or in terms of brevity ( تغيزة ) 75), therefore the researcher conducted the factor analysis of the scale using the program (Factor Analysis 3.2.3). The method of basic components is one of the most widely used and accurate methods of factor analysis and has a number of advantages indicated by scientific research, as it leads to the extraction of accurate and clear saturations as well as each factor extracts the maximum amount of variance (Gorsuch, 1983). The results are as shown in the table (5).

satura tes	Communa lities	Academic buoyancy fields			
77.93 7	0.736	Self-efficacy			
86.88 6	0.765	Uncertain control			
95.21 4	0.646	academic integration			
98.96 4	0.72	Anxiety			
100	0.81	The teacher's relationship with the students			
4.676		Basic root			
77.94%		Contrast ratio			

Table (5) the factor validity of the acad	emic
buoyancy scale	

From the above table, it is clear that the saturation values of all fields of academic buoyancy are on one factor at a rate of (77.94%), which indicates the correlation of these fields and that they measure one variable, which is academic buoyancy, and therefore it has a high degree of validity.

Academic buoyancy scale stability

Internal consistency method (Alpha Cronbach):

The internal consistency method of the scale is adopted according to the Alpha-Cronbach equation when comparing the significance of the alpha coefficients for each item in the case of deleting the item's degree from the total degree of the scale. If the Alpha coefficient of the item is higher than the Alpha coefficient of the scale, the item will be deleted.

Table (6) The significance of vocabulary stability coefficients using Cronbach's Alpha coefficient in
the case of deleting the word's degree from the total score of the scale

Alpha coefficient The relationship between the professor and the students (0.849)		Alpha coefficient toanxiety ( 0.851 )		Alpha coefficient for academic integration ( 0.849 )		Alpha coefficient For uncertain control ( 0.848 )		Alpha coefficient for self-efficacy (0.852)	
Alpha coefficient	number Paragraph	Alphacoe fficient	parag raph numb er	Alpha coefficien t	paragraph number	Alpha coefficien t	numb er Parag raph	Alpha coefficien t	numb er Parag raph
0.863	41	0.863	31	0.863	21	0.864	11	0.864	1
0.863	42	0.863	32	0.863	22	0.864	12	0.864	2
0.864	43	0.864	33	0.863	23	0.863	13	0.864	3
0.864	44	0.863	34	0.863	24	0.863	14	0.864	4
0.863	45	0.863	35	0.863	25	0.863	15th	0.864	5
0.864	46	0.864	36	0.863	26	0.863	16	0.863	6

0.864	47	0.864	37	0.863	27	0.863	17	0.863	7
0.863	48	0.864	38	0.863	28	0.863	18	0.864	8
0.863	49	0.864	39	0.863	29	0.863	19	0.864	9
0.863	50	0.864	40	0.864	30	0.863	20	0.863	10
The scale success $   A_{1}   A_{2}   A_{3}   A_{4}   A_{5}   A_{5}  $									

The scale's overall Alpha coefficient (0.928)

From the observation of the above table, we find that all the values of Cronbach's Alpha coefficients for the items of all fields are less than the total Alpha Cronbach's coefficient value of the scale (0.928), and thus the scale has a high level of stability.

## **Research Results:**

The First Aim: to identify the prevailing pattern of thinking center patterns among students of Al-Mustaqbal University College. According to Riso (1995) (2003) if the scale is used collectively, the highest average score obtained by the examinees in any of the nine scales in the (RHETI) scale it indicates their dominant character pattern (Riso, 1995) (Riso, 2003) and the table below shows the values of the averages and deviations of the research sample.

Table (7) values of the averages and deviationsof the patterns of the thinking center

Standard Deviation	Arithmetic Mean	Thinking Center Pattern
5.238	19,509	Enthusiast
3.300	19,375	Loyalist
4.970	18,517	Investigator

From the observation of the above table, we find that the arithmetic mean value of the enthusiastic pattern is the highest among the

arithmetic means of the three patterns, which means that it is the dominant pattern among students of Al-Mustaqbal University College. The researcher attributes this result to the fact that the students are in a young age, and this age group is characterized by their individuals being excessively emotional, enthusiastic, and hyperactive in order to use their abilities and energies and strive hard to get busy to move away from anxiety feelings and their desire for change and diversity.



The Second Aim: To find out the academic buoyancy of the students of Al-Mustaqbal University College. For the purpose of achieving this goal, the answers of the research sample members were analyzed on the academic buoyancy scale and the following appeared as shown in the table below.

 Table (8) results of the T-test to indicate the difference between the arithmetic mean and the hypothetical mean of the academic buoyancy scale

indication at level	T value		Hypothetical	Deviation	Arithmetic	number of
(0.15)	tabular	calculated	ated mean Norr	Normative	mean the	Individuals of the sample
significance	1.96	54.211	150	23,256	215.270	373

From the above table, we note that the calculated T value is (54,211) which is higher than the tabular value (1.96) at the significance

level (0.05) and degree of freedom (372.1). The result indicates that the research sample possesses a high level of academic buoyancy.

This is due to the increasing life pressures that students are exposed to, whether inside or outside the university, and that academic buoyancy occurs as a result of facing daily events and difficulties.

Martin and Marsh believe that students' response to daily challenges have the ability to float above difficulties and challenges by not responding to failure and have strategies to face the situation, so they have (effort or perseverance, confidence, self-efficacy, study, control, use of motivation strategies, study participation, coordination and commitment) and they will be more attentive to challenges and their positive beliefs increase as well as the increase in their scholastic achievement.

The Third Aim: the correlation between the center of thinking and academic buoyancy among the students of Al-Mustaqbal University College to find the correlation between the patterns of the thinking center and the fields of academic buoyancy, the researcher used the Pearson correlation coefficient and the results appeared as shown in the table below.

Table (9) values of the correlation coefficients
between the patterns of thinking center and the
fields of academic buoyancy

Enthusiast	Loyalist	Investigator	Academic Buoyancy Thinking Center
-0.15	0.112	0.106	Self-efficacy
-0.171	-0.135	0.13	Uncertain control
-0.16	0.122	0.152	Academic integration
-0.141	-0.133	0.167	Anxiety
-0.169	-0.11	0.11	The teacher's relationship with the students
-0.169	0.109	0.139	Academic buoyancy (total)

From the observation of the above table, we find that the values of the correlation coefficients are not significant, that is, there is no correlation between the patterns of the thinking center and academic buoyancy.

#### References

- [1] Allen, M. , Yen, W. M. (1979): Introduction to Measurement Theory, Brook Cole, California.
- [2] Cory, Caplinger (2000). Enneagram Introduction. Lifexplor press. NY,USA
- [3] Fredman, Jerome P. (1996). The Enneagram and other personality types. McCarthy Center press, New York 10025.USA
- [4] Gorsuch, R. L. (1983), Factor Analysis (2nd. Ed). Hillsdale, NJ: Erlbaum
- [5] Hurley, Kathleen V.& Dobson, Theodore E. (1991). What's my type? Harper San Francisco press. USA
- [6] Krieford, B. (2003). Personality type introduction to self help. New York: Jone Herow Press.
- [7] Martin, A. J., & Marsh, H. W. (2009). Academic resilience and academicbuoyancy: Multidimensional and hierarchical conceptual framing ofcauses, correlates, and cognate constructs. Oxford Review of Education, 35, 353-370.
- [8] Martin, A.& Marsh, H. W (2008). Academic buoyancy: Towards an understanding of students' everyday academic resilience. Journal ofSchool Psychology, 46, 53-83.
- [9] Martin, A.J. (2014). Academic buoyancy and academic outcomes: Towards a further understanding of students with attention deficit/hyperactivity disorder (ADHD), students without ADHD and academic buoyancy itself. British Journal of Educational Psychology, 84, 86-107.
- [10] Palmer, Helen (1988).Understanding your self and others .<sup>©</sup> Harper & Row. USA
- [11] Piosang, T. (2016). The Development of Academic Buoyancy Scale for Students (ABS-AS). The assessment, Handbook, 12, 13-44.
- [12] Riso, Don Richard (1995). Discovering your personality type: the new Enneagram Questionnaire ,© Houghton Mifflin company,215 Park Evenue South, Boston. New York
- [13] Riso, Don Richard (1998). FAQs (Frequently asked questions).<sup>©</sup> The Enneagram Institute press, 3355 main St. Route 209 Stone Ridge,New York
- [14] Riso, Don Richard & Russ Hudson (2002). The RHETI (version 2) : Independently scientifically validated .© The Enneagram

Institute press,3355 main St. .Route 209 Stone Ridge,New York

- [15] Riso, Don Richard (1996). personality types.2ed.,<sup>©</sup> Houghton Mifflin company,215 Park Evenue South, Boston. New York
- [16] Riso, Don Richard&Russ Hudson (2003). Q&A on object relation : with regard to the Enneagram types. © The Enneagram Institute press,3355 main St. .Route 209 Stone Ridge,New York
- [17] Shou, T. (2000). A directional theory of the enneagram. Enneagram Monthly, 57, January, New York, USA
- [18] Smith, M. (2016). Forget Resilience, it's about academic buoyancy, Essential Weekly Intelligence for the education professional, (19),28-34.
- [19] Tagheza, Bou Zayan (2012): Exploratory and confirmatory factor analysis using SPSS, Dar Al-Fikr Al-Arabi, 1st edition, Cairo, Egypt.
- [20] Abdel Khaleq, Ahmed (1994). The basic basic of personality. University Knowledge House, Alexandria
- [21] Al-Azamat, Omar, Al-Mualla, Nazmi Hussein (2019): Academic buoyancy and its relationship to internal and external motivation, among tenth grade students, The Arab Journal in the Humanities, Volume 12, Number 1.