

Awareness of attentive attention and its relationship to preferences for cerebral control among Al-Qadisiyah University students

By

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Abstract

The researchers sought to know the correlation between the awareness of attentive attention and the preferences of cerebral control among university students through a set of objectives represented by identifying:

- 1 Awareness of alert attention among the students of Al-Qadisiyah University.
- 2 Brain control preferences among Al-Qadisiyah University students.
- 3 Correlational relationship between the awareness of attentive attention and the preferences of cerebral control among the students of Al-Qadisiyah University.

To achieve the objectives of the research, the two researchers built a scale to measure the awareness of attentive attention, which in its final form consisted of (22) items, and the adoption of the (Kadhim 2011) scale for cerebral control, in its final form, consisted of (56) items after verifying their validity and stability and analyzing their paragraphs statistically on the research sample of (400) Male and female students were chosen in a multi-stage random way, and then extracted the results of their research through the statistical package for social sciences (SPSS) to process the data statistically. The research reached a number of results, the most important of which are:

- University students have an alert attention awareness.

The cerebral preference (C) among university students represents the highest preference for cerebral control, and the cerebral control preference (A, D) ranked second and third, respectively, while the results showed that there is no statistical indication that university students have a preference (B).

There is a statistically significant correlation between the awareness of attentive attention and each of the cerebral control preferences (A,C), while there was no statistically significant correlation between the awareness of attentive attention and each of the cerebral control preferences (B,D). Based on the results of the research, the researchers developed a set of recommendations and suggestions.

Keywords: Al-Qadisiyah University; student; activity; Awareness

The Research problem

With the recognition that in light of the rapid cognitive and technological development that the world witnessed and that accompanied the educational process, many students at various levels of study, including the university stage, find it difficult to focus attention and remember, which reflected negatively on the level of their academic achievement, and this was confirmed by Langer (1992) when she indicated that students' behavior in a way that lacks alert attention and awareness of it often makes them unable to open up to new experiences that enable them to think positively about those experiences and thus shrink back to old ideas (Langer, 1992:229). This era has affected some students with the loss of the ability to communicate with the reality in which they live and with others, which makes them unable to overcome any problem or problematic situation that confronts them, and this may affect their personality and their ability to make decisions regarding new experiences (Al-Sindi, 2010: 214). On the other hand, Herrmann (2001) emphasized that there are many difficulties that individuals face while using their mental abilities not due to a lack of those abilities, but rather from knowledge and knowledge other than tuberculosis. Therefore, a proper understanding of the structure of the brain and the way it works will help them to face these difficulties (Buzan, 2002: 12). In the field of learning, brain control preferences affect the effectiveness of the educational process, especially if we know that the learning environment is designed to affect the methods of learning. Different teaching and learning among students, however, many studies that dealt with learning systems in universities and other educational stages confirmed that the interest in the left hemisphere of the brain in these educational stages is more than the right hemisphere, and this necessarily means a clear neglect in the educational process to develop the function of the right side of the brain (Herrmann, 2001: 67). Therefore, this research came as a scientific attempt to answer the following question: What is the strength and direction of the correlative relationship between the awareness of attentive attention and the preferences for cerebral control among university students? .

The importance of the research

The university student is considered a mainstay in building society in general, and the university in particular, as it forms its centerpiece and interacts with its educational and scientific directives to form creative energy and a tool that contributes to its development. In this era (Abu Auf et al., 2019: 4) it; The development of mental processes and the promotion of positive behavior has become a social and educational necessity imposed by the needs of society in progress according to solid scientific foundations to keep pace with these developments. Therefore, the university has to activate theoretical and applied programs to develop these processes, being the most important institution in development and providing society with scientific competencies that are relied upon in human development . In light of the impact of development, researchers in the field of cognitive and educational psychology have been interested in the concept of awareness of alert attention, as it is one of the important variables that have a direct link to the educational process. It is a necessary factor in increasing the awareness and attention of students towards the educational process, in addition to the role it plays as an enhancer of mental flexibility, and thus students acquire new experiences that increase their capabilities in facing good situations, and on the other hand, transfer what they have learned from experiences to their practical lives (Buzan, 2002: 13). . Studies that dealt with the concept of awareness of attentive attention indicated that it is formed from childhood, and that social and academic learning has an important role in its development and development. Aspects of the experience, so they direct through their awareness of it and do not see it as a fixed fact. For example, a student feels resentment at the present time for a situation instead

of living in a state of anxiety and depression (101 Schwartz, 2018:)

In the field of neuropsychology, although the neural mechanisms associated with awareness of alert attention were not well characterized at first, studies in the past ten years focused on the knowledge of neuroimaging of states of awareness of alert attention, which results revealed that there are neural changes associated with Mindful Awareness (Reubel, 2021:30), and it is these findings that have encouraged some researchers to increasingly use mindful awareness in the field of psychological well-being and management of chronic diseases as well as adjuvant therapies for mental disorders as recent structural and functional neuroimaging studies have begun to provide insight. The neural processes associated with the exercise of this awareness are clear (Marchand, 2014: 472), hence the need to address the concept of cerebral control preferences, as it is a concept that has attracted the interest of researchers in their attempt to understand the methods of awareness, attention, vigilance, perception and thinking that individuals use in their processing of information and their practice of the skills they acquire. Until the last decade witnessed a great knowledge revolution in brain research (Felde, 2002: 167), until the study of the brain and its preferences became a phenomenon in Why requires more study and research, especially for learners, because understanding the information processing of the learner requires understanding what is going on inside the brain of that learner - meaning - if we want to understand how a learner will face a problematic situation, we must study the changes that occur in the learner's brain during His treatment of this problem (Al-Atoum, 2004: 49-50). The human brain is a complex entity with an unlimited amount of capabilities that cannot be dispensed with (Sebastian, 2004:51), including the preferences for cerebral control to distinguish between learners, as each learner has his own brain preference. Special thinking and learning, and all this requires those in charge of the educational process to diversify the teaching method and organize the classroom environment to suit the learners' preferences (James, 2005:217). Thus, each individual engaged in the teaching process must realize that there are four categories of students (in terms of preferences for brain control) within the classroom, and each category represents a special pattern of these four preferences. (A, B, C, D) the way students learn with preference (A) tend to learn through analysis of data and scientific facts, while students with preference (B) learn in an organized and precise way, and students with preference (C) learn through intuitiveness sensory perceptions that they possess, while students with preference (D) learn through imagination, thinking and creative exploration (Louise, 2008:19-20)). On the other hand, the importance of the concept of brain control preferences is evident in evidence of research that focused on studying and measuring it, as well as its relationship to many other variables. The mind habits of students according to the preferences of brain control and in favor of students with preferences (A, B) at the expense of students with preferences (C, D), and that students generally tend to use brain preferences (D, C, A, and B respectively) (Kadhim) While the study of Al-Bayati (2014) aimed to know the relationship of the problem-solving style with the students' brain control preferences, the results of which concluded that students tend to use brain preferences (D, C, B, A, respectively) In addition, there are no differences between students in the method of solving problems according to the preferences of brain control (Al-Bayati, 128:2014-134).

As for the relationship of brain activity to the awareness of attentive attention, the results of a study (Van Dam et al. (2010) that targeted the relationship of awareness of alert attention to brain activity according to the theory of mental event response by Bishop et al. (2004) concluded that there is a statistically significant correlation between the awareness of attentive attention and brain activity ((Van Dam elat., 2010:806. With regard to the gender variable, which is one of the variables included in the study in the current research, the results

of the study of Kazem (2011) and the study of Al-Bayati (2014) revealed that there are no statistically significant differences in preferences for brain control according to gender (males, females) (Kadhim, 124: 2011), (Al-Bayati, 133: 2014).

The Research Objectives: The current research aims to identify:

- 1 Awareness of alert attention among the students of Al-Qadisiyah University.
- 2 Brain control preferences among Al-Qadisiyah University students.
- 3 Correlational relationship between the awareness of attentive attention and the preferences of cerebral control among the students of Al-Qadisiyah University.

Define terms

Awareness Attention Mindful: defined by Brown & Ryan (2003) as “an active mental state characterized by an individual’s awareness and awareness of his immediate (internal and external) experiences, and his ability to notice, describe, and accept the meaning of these experiences, without being bound by prejudices. (Brown et al., 2007:212).

Theoretical definition

The researchers adopted the definition of (Brown & Ryan (2003) a theoretical definition in their research, for their adoption of their definition and theory in constructing a scale of awareness of attentive attention, and the interpretation of the results.

Procedural definition

The total score obtained by the student after answering the items of the Mindfulness Attention Awareness Scale that was built for the purposes of the current research.

The Cerebral Control preferences: defined by Kazem (2011): “the individual’s tendency to depend consistently on one of the four patterns (A, B, C, and D) of the brain hemispheres, so that this pattern is dominant over the rest of the other patterns during The individual’s processing of information and solving problems” (Kadhim, 10:2011).

Theoretical definition

The researchers adopted a definition (Kazim, 2011) as a definition of the owner of the scale adopted to measure preferences for brain control for the purposes of the current research.

Procedural definition

The total score that the student obtains for each brain control preference after answering the items (A, B, C, D) of each preference of the brain control scale that was adopted for the purposes of the current research.

Theoretical background

Awareness Attention Mindful

Awareness of vigilant attention is one of the important topics of cognitive psychology because it is a main means of the individual’s connection with the environment and identification with it, and a necessary introduction to the rest of the other cognitive processes, in addition to that this awareness is a skill that we take in the process of consciously focusing on a stimulus or things surrounding us and choosing it with clear vigilance in the sense that it

works On directing the individual's behavior towards the elements of the environment in order to perceive them and try to adapt to them (Al-Sultani, 2016: 2) In the early eighties of the twentieth century, psychologists Edward Dessie and Richard Ryan developed their theory of motivation, in which they emphasized that all human beings are active beings in interaction with Its environment, where all human beings strive to overcome challenges and create new experiences, all individuals in different societies have needs that form the basis of self-motivation and integration of personality, where individuals search for the meaning of life and the discovery of this meaning of life constitutes a distinct desire of the individual makes him set a goal for his life, which enhances his awareness of himself and his surroundings and the pursuit of that goal (Ryan & Deci, 2000: 60).

The theory of self-determination focused on the individual and his personal achievements for self-efficacy and self-realization until it began to be based on a main principle represented in the need for the individual to be aware of his internal or authentic motives in making his decisions - meaning - that this theory focused on the role of internal motives instead of external motives, and showed that individuals They are able to determine their own destiny when their needs for competence, communication, and autonomy are met (Ryan & Deci, 2004: 256).

The Cerebral Control Preferences: Researchers in this field believe that the historical roots of the use of the concept of cerebral control for the first time go back to the neuroscientist (John Jackson) when he presented his idea of the leading side in the brain and expressed this, saying, "The two halves of the brain cannot They are repetitive to each other, as he shows that the damage that occurs to one of the two hemispheres of the brain loses the ability to speak, which is the highest function in the human being. Nawfal, 2007: 52). Ned Herman was one of the most important researchers in this field, as he focused his theory on the discoveries of the two worlds, Roger Sebri and Paul McClain. What is known as the cortex or cortex of the brain (cerebral cortex), and Hermann merged these two sections of McClean's theory with the left and right halves of Spree's theory in a symbolic circular quadrilateral model representing the brain. They are (A,B) on the left side and (C,D) on the right side of the brain (Herrmann, 1993,p 13-17). He also used colors in his theory, where he gave each color a special significance, as the blue color denotes wisdom and knowledge, and this is the reason why he chose for it the quarter-circle (A) to denote the logical analytical mindset, and the green color represents the quarter-circle (B) and denotes leadership and management of situations, as it is the dominant color on the The land is therefore called the organizational executive mentality. As for the red color, it represents a quarter of the circle (C) and this color is associated with fire, heat and warmth, and therefore it evokes feelings, feelings, sympathy and communication. Therefore, it indicates the emotional human mentality, and the yellow color is a warm color and is associated with the sun, and being associated with the sun and the spread of its rays, it agrees with the broad vision of thinking and creativity, and thus this color indicates the creative mentality and represents a quarter of the circle (D)) (Herrmann, 2010: 160). The upper left (A) brain pattern is concerned with (analysis, facts, data, numbers, focus, feasibility, evaluation, and outcomes), while the lower left (B) brain type is concerned with (planning, execution, actions, details, maintenance, arrangement, methods, and order). The lower right pattern (C) is concerned with (relationships with others, feelings and emotions, dealing with others, human meanings, care and concern for humans, and sensory intuition), while the upper right pattern (D) is concerned with (thinking). Strategic thinking, creative thinking, global outlook, visualizations, exploration, multiple choices, experiments and creativity, and intuitiveness (Herrmann 2010:55-56).

The research community and its sample

The current research community is determined by the students of the preliminary / morning studies / at the University of Al-Qadisiyah for the academic year 2021-2022, male and female, and in both scientific and humanitarian specializations, numbering (19,916) male and female students, and by (8798) males and (11118) females, the research sample was chosen. In a multi-stage random way, by selecting a sample of (6) colleges, of which (3) scientific colleges and (3) humanities colleges out of (18) colleges at the University of Al-Qadisiyah, from which (400) male and female students were selected; This size is considered appropriate in constructing psychological scales (Al-Zobaie and others, 73:1981) and by (2%) of the research community, distributed by (176) males and (224) females, and the percentage of males reached (44%), while the percentage of males reached Females (56%), of whom (152) are from the scientific specialization and (248) are from the humanitarian specialization. The percentage of the scientific specialization is (38%), while the percentage of the human specialization is (62%) of the research sample. Table (1) shows this.

Table (1) The research sample is distributed according to the variables of gender (males and females) and specialization (scientific, human).

Specialization	College	Sex		Total	Total
		Male	Female		
	Engineering	16	17		
	Sciences	11	25	69	83
	Administration and Economics	42	41		
	Law	18	15		
	Education	72	106	107	141
	Arts	17	20		248
		176	224		400

X-The research tools:

In order to measure the variables of the research, the appropriate procedures were determined to build a scale of awareness of alert attention by making use of the theoretical framework and previous studies in addition to the ideas and opinions of some professors specialized in the field of psychology. 2011) to measure brain control preferences, which consisted of (56) items, and the researchers performed a number of procedures, namely:

Conceptualizing Concepts

The theoretical definition of the concept was determined by adopting the definition of Brown and Ryan (2003), and adopting the (Kadhim, 2011) theoretical definition, which was previously mentioned above.

The opinions of the arbitrators in the paragraphs of the two scales and their instructions:

The two scales were presented in their initial form to (15) arbitrators specialized in the field of psychology and the approved theoretical definition of each concept, instructions and alternatives to answering the paragraphs for the purpose of expressing their opinions and after taking the opinions and observations of the arbitrators and adopting a percentage of (80%) or more for the purpose of accepting or rejecting the paragraph, all paragraphs were kept In the two scales after this procedure, they also agreed on the scale's instructions and answer alternatives.

Statistical analysis: Specialists in the field of psychometrics refer to two common methods in the statistical analysis process, which are the method of the two peripheral groups (external consistency) and the method of linking the paragraph to the total degree (internal consistency).

The two terminal groups:

To conduct the analysis in this way, the two scales were applied to the research sample of (400) male and female students. And then correcting the students' answers and collecting the total score for each of the students' forms and arranging them in descending order from the highest score to the lowest score (Al-Zoba'i and others, 1981: 74) and choosing a percentage (27%) for the purpose of forming the two groups and using the T-test for two independent samples to test the significance of the differences between the two groups. The highest and lowest value for each item of the two scales, it was found that the calculated T-value for all items is distinct when compared with the tabular value (1.96) at the level of significance (0.05) and the degree of freedom (214) except for items (6.4) of the Attentive Attention Awareness Scale. Table (3.2) shows this, and finding the relationship of the paragraph degree with the total degree is a criterion for measuring awareness of alert attention through its relationship to the degree of individuals on the paragraphs of the scale, and finding the relationship of the paragraph degree with the field degree of the brain control scale and the correlation coefficient here refers to the paragraph measurement level of the concept that It is measured by the total score of the scale, and this method is considered one of the most accurate methods adopted in calculating the internal consistency of the items of the scale (Al-Isawy, 1985: 95) and to extract the correlation between the score of each item and the total score of the scale, Pearson correlation coefficient and Table (3,2) show that

Table (2) *The discriminatory power and the correlation of the items of the Mindfulness Attention Awareness Scale*

No.	senior group		lower group		Calculated T-value	correlation coefficient	Indication level (0.05)
	the middle Arithmetic	Deviation standards	the middle Arithmetic	Deviation standards			
1	2.388	1.236	1.833	1.106	3.479	0.208	Function
2	3.370	1.279	2.351	1.209	6.011	0.292	Function
3	2.685	1.220	2.231	1.107	2.862	0.255	Function
4	2.481	1.321	2.259	1.218	1.285	0.016	non
5	3.231	1.343	2.546	1.299	3.809	0.220	Function
6	2.537	1.292	2.527	1.226	0.054	0.099	non
7	2.898	1.282	2.546	1.113	2.153	0.407	Function
8	1.293	3.166	1.223	3.713	3.189	0.533	Function
9	4.324	0.873	3.240	1.237	7.434	0.446	Function
10	4.611	0.638	3.250	1.246	10.099	0.247	Function
11	4.296	0.909	3.064	1.255	8.257	0.552	Function
12	4.583	0.712	3.111	1.232	10.746	0.454	Function
13	4.425	0.845	3.185	1.153	9.019	0.325	Function
14	3.851	1.092	3.046	1.210	5.135	0.427	Function
15	4.342	1.024	3.083	1.223	8.199	0.434	Function
16	4.231	1.028	2.981	1.230	8.100	0.430	Function
17	4.018	1.013	2.925	1.133	7.468	0.422	Function
18	3.990	1.027	2.851	1.206	7.470	0.513	Function
19	4.351	0.878	2.963	1.252	9.434	0.502	Function
20	4.259	0.824	2.833	1.164	10.388	0.433	Function
21	4.175	1.048	2.861	1.226	8.468	0.596	Function
22	4.694	0.647	3.027	1.106	13.511	0.544	Function
23	4.490	0.729	3.064	1.186	10.640	0.480	Function
24	4.713	0.580	3.342	1.347	9.705	0.406	Function

Table (3) Discriminative power and correlation of the items of the brain control preference scale

No.	senior group		lower group		Calculated T-value	correlation coefficient	Indication level (0.05)
	the middle Arithmetic	Deviation standards	the middle Arithmetic	Deviation standards			
1	1.990	0.096	1.833	0.374	4.232	0.344	Function
2	1.777	0.417	1.527	0.554	3.742	0.369	Function
3	1.898	0.303	1.666	0.473	4.275	0.370	Function
4	1.787	0.411	1.435	0.498	5.661	0.369	non Function
5	1.925	0.263	1.611	0.489	5.885	0.438	Function
6	1.842	0.365	1.481	0.501	6.041	0.498	non Function
7	1.787	0.411	1.527	0.519	4.064	0.453	Function
8	1.787	0.411	1.537	0.500	4.008	0.413	Function
9	1.759	0.429	1.537	0.519	3.427	0.342	Function
10	1.787	0.411	1.490	0.502	4.743	0.423	Function
11	1.833	0.374	1.527	0.501	5.073	0.454	Function
12	1.861	0.347	1.555	0.499	5.221	0.471	Function
13	1.833	0.374	1.564	0.498	4.478	0.426	Function
14	1.833	0.374	1.537	0.500	4.923	0.415	Function
15	1.935	0.247	1.509	0.502	7.906	0.549	Function
16	1.953	0.211	1.527	0.501	8.134	0.501	Function
17	1.925	0.263	1.490	0.502	7.976	0.556	Function
18	1.916	0.277	1.574	0.496	6.256	0.479	Function
19	1.879	0.326	1.490	0.502	6.744	0.469	Function
20	1.907	0.291	1.500	0.502	7.292	0.539	Function
21	1.935	0.247	1.463	0.500	8.784	0.632	Function
22	1.898	0.303	1.601	0.528	5.051	0.443	Function
23	1.898	0.303	1.481	0.501	7.379	0.559	Function
24	1.796	0.427	1.592	0.493	3.243	0.408	Function
25	1.842	0.365	1.583	0.495	4.375	0.415	Function
26	1.916	0.277	1.555	0.517	6.389	0.490	Function
27	1.953	0.211	1.500	0.520	8.393	0.584	Function
28	1.898	0.303	1.574	0.496	5.783	0.500	Function
29	1.935	0.247	1.583	0.495	6.605	0.487	Function
30	1.916	0.277	1.500	0.502	7.544	0.521	Function
31	1.925	0.263	1.518	0.501	7.470	0.539	Function
32	1.879	0.329	1.490	0.502	6.744	0.496	Function
33	1.879	0.326	1.546	0.518	5.651	0.390	Function
34	1.842	0.365	1.500	0.502	5.729	0.489	Function
35	1.805	0.397	1.620	0.487	3.059	0.392	Function
36	1.805	0.397	1.481	0.501	5.259	0.444	Function
37	1.851	0.356	1.592	0.493	4.423	0.480	Function
38	1.888	0.315	1.574	0.515	5.414	0.473	Function
39	1.787	0.411	1.611	0.508	2.795	0.319	Function
40	1.861	0.347	1.509	0.502	5.987	0.485	Function
41	1.824	0.382	1.592	0.512	3.763	0.387	Function
42	1.870	0.337	1.518	0.501	6.045	0.497	Function
43	1.787	0.411	1.490	0.502	4.743	0.390	Function
44	1.842	0.365	1.481	0.537	5.768	0.396	Function
45	1.833	0.374	1.611	0.489	3.746	0.470	Function
46	1.851	0.356	1.537	0.500	5.319	0.392	Function
47	1.731	0.445	1.537	0.519	2.954	0.410	Function
48	1.805	0.397	1.518	0.501	4.658	0.469	Function
49	1.824	0.382	1.500	0.502	5.334	0.449	Function
51	1.861	0.347	1.490	0.520	6.150	0.433	Function
51	1.833	0.374	1.490	0.520	5.553	0.482	Function
52	1.620	0.506	1.444	0.535	2.481	0.296	Function
53	1.787	0.411	1.564	0.498	3.575	0.440	Function
54	1.659	0.429	1.444	0.499	4.968	0.501	Function
55	1.814	0.390	1.453	0.500	5.915	0.508	Function
56	1.814	0.390	1.467	0.501	5.675	0.449	Function

By conducting the aforementioned two statistical analysis methods, the cerebral control scale remained consisting of (56) and the mindful attention awareness scale became composed of (22) items.

Psychometric properties of the two scales:

Validity: Psychometrics literature emphasizes that honesty is a concept that basically refers to whether the scale actually measures what it was prepared to measure or measures something else (Faraj, 1980: 276-277) - meaning - that honesty is directly related to the particular purpose or use that designed the scale. For it (Mikhael, 163: 2016), the validity of the two scales was verified through the following indicators of validity:

The two terminal groups

The relationship of the paragraph score with the total score of the scale

Reliability: Reliability means the accuracy of the scale's measurement of the trait it measures. The scale is stable if the trait is accurately measured. The stability of the alert attention scale was verified by the alpha-Cronbach method, where the reliability coefficient extracted by this method reached (0.79), and this value was considered a good indicator. A number of researchers indicate that the reliability coefficient is good if its square is (0.50) or more. The stability of the brain control scale was verified by the Kewder-Richardson method. For type A, the reliability coefficient is equal to (0.77), and for the type B, the reliability coefficient is equal to (0.71), and the type C is the reliability coefficient. It is equal to (0.83) and the D mode has a stability coefficient of (0.78).

Presentation, interpretation and discussion of the results:

The first goal: to identify the awareness of alert attention among university students:

Statistical treatments showed that the arithmetic mean of university students' scores on the scale of awareness of attentive attention was (75.860) and with a standard deviation of (10.179), while the hypothetical mean was (66). One shows that the calculated t-value (19.372) is greater than the tabular t-value of (1.96) at a significance level (0.05) and a degree of freedom (399), which indicates that university students have an alert attention awareness, and table (4) shows that

Table (4) The significance of the difference between the arithmetic and hypothetical means on the scale of awareness of attentive attention

Sample volume	Arithmetic mean	standard deviation	hypothetical mean	Calculated T-value	Table T-value	Indication level (0.05)
400	75.860	10.179	66	399	19.372	Function

This result may be due according to the adopted theory that the concept of awareness of alert attention is formed since childhood, and social and academic learning has an important role in its development and development. Accordingly, the researchers believe that university students have acquired this type of attention in order to avoid academic failure and on the other hand Their awareness of the role it plays as an enhancer of mental flexibility, and consequently the students' acquisition of new experiences that increase their capabilities in facing new

situations, and on the other hand, transferring what they have learned from experiences to their practical lives.

The second objective: To know the preferences of brain control among university students.

To identify the preferences of brain control among university students, the researchers used the t-test for one sample after extracting the arithmetic mean, hypothetical mean, standard deviation, and the calculated T-value and testing them at a significance level (0.05) and a degree of freedom (399) for each of the four brain control preferences, and a table (5) shows that.

Table (5) T-test for the significance of the difference between the arithmetic mean and the hypothetical mean of the research sample scores on the scale of brain control preferences

the pattern	Arithmetic mean	hypothetical mean	standard deviation	Calculated T-value	Table T-value	Indication level(0.05)	relative weight
A	23.620	21.00	2.213	23.616	1.96	Function	26.489
B	17.065	21.00	2.071	37.938-		Function	19.138
C	25.152	21.00	2.457	33.755		Function	28.207
D	23.330	21.00	2.360	19.670		Function	26.164

From table (5) above, the following results appear:

The cerebral preference (C) among university students represents the highest preference for cerebral control, and this result is a logical result according to the school stage they are in, which requires focusing on attention skills and the ability to social interaction, suggesting new ideas and processing information based on the laws of logic, and these are the main characteristics For individuals who are characterized by this cerebral preference, which Hermann called (the emotional mentality), and this result agrees with the results of the study of Nofal and Abu Awad (2007), while the results of the study of Kadhim (2011) and the results of the study of Al-Bayati (2014) are different.

My preference for brain control (D, A) came in the second and third places, respectively, and this result is also logical, since these two preferences are characterized by individuals who love teamwork and logical thinking.

There is no statistical indication that university students have a preference (B) - meaning - that the students are not overpowered by the methods of arrangement and time management. What this result showed does not mean that any individual when he has a preference higher than the other preferences that he does not use the rest of the preferences, but rather he uses all the preferences in varying proportions (Al-Turaihi and Kazem, 129: 2013).

Knowing the correlation between the awareness of attentive attention and the preferences of cerebral control among university students: The following null hypothesis has been tested: There is no correlation between the awareness of attentive attention and the preferences of cerebral control among university students.

In order to know the correlation between the research variables among university students, the researchers used the Pearson correlation coefficient and measured its value with the critical value of the significance of the correlation coefficient of (0.089), as well as the t-

test for the significance of the Pearson correlation coefficient, and table (6) shows the correlation coefficients and their statistical significance at the level of significance (0.05) and a degree of freedom (398).

Table (6) Correlation coefficients and computed and tabular T-values of the correlation between the awareness of attentive attention and cerebral control preferences

Variables	Correlation coefficient	Calculated T-value	Table T-value	Indication level (0.05)
Awareness of Attentive Attention - A	0.141	2.841	1.96	Function
Mindful Attention Awareness - B	0.010	0.200	1.96	No function
Mindful Attention Awareness - C	0.215	4.392	1.96	Function
Mindful Attention Awareness - D	0.029	0.579	1.96	Non function

The following results appear from Table (6) above:

There is a statistically significant correlation between the awareness of attentive attention and each of the cerebral control preferences (A, C), in addition to that there is no statistically significant correlation between the awareness of attentive attention and each of the cerebral control preferences (B, D), and the researchers believe that this result is a logical result. In light of the characteristics of students with awareness of attentive attention and students with each of the brain control preferences. Students with preference (A) are characterized by interest in obtaining facts and using analysis and logic. Students with preference (C) are characterized by organization and seriousness in dealing with new experiences, assimilation and compatibility with them, and this What awareness requires attentive attention. While students with preferential brain control (B,D) are characterized by attention to unnecessary details, routine, speed of boredom, impulsivity, and reliance on guesswork, which is not consistent with the characteristics of alert attention awareness.

The Recommendations

In light of the research findings, the researchers recommend the following:

- 1 Paying attention to the practical (practical) lessons as well as the theoretical lessons that will increase the students' ability in the awareness of attentive attention.
- 2 Include academic courses according to the preferences of brain control in a scientific manner from specialists in this field without focusing on one preference.
- 3 Paying attention to scientific trips in order to increase the students' knowledge of what exists in the physical and social environments, and asking students to write reports on what they observed.
- 4 Preparing special programs for students who tend to adopt a particular preference without the other preferences due to the importance of each of the important control preferences in the students' lives in general and their academic life in particular.

The Suggestions

The two researchers suggest conducting the research that I read during the completion of their research:

- 1 The relationship of awareness of attentive attention with the habits of mind among students in different stages of study.
- 2 A comparative study of learned helplessness according to the cerebral control preferences of evening secondary school students.
- 3 Conducting a research similar to the current research among faculty members at the university.
- 4 Relationship of the awareness of attentive attention with other variables such as (problem solving style, the philosophical cognitive style - literal).

The following results appear from Table (6) above:

There is a statistically significant correlation between the awareness of attentive attention and each of the cerebral control preferences (A, C), in addition to that there is no statistically significant correlation between the awareness of attentive attention and each of the cerebral control preferences (B, D), and the researchers believe that this result is a logical result. In light of the characteristics of students with awareness of attentive attention and students with each of the brain control preferences. Students with preference (A) are characterized by interest in obtaining facts and using analysis and logic. Students with preference (C) are characterized by organization and seriousness in dealing with new experiences, assimilation and compatibility with them, and this What awareness requires attentive attention. While students with preferential brain control (B,D) are characterized by attention to unnecessary details, routine, speed of boredom, impulsivity, and reliance on guesswork, which is not consistent with the characteristics of alert attention awareness.

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