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Emotional engagement and its relationship to cognitive dependence among students of the college of physical education and sports sciences

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Abstract

The objective of this paper is to identify emotional involvement and cognitive dependence among students in the Faculty of Physical Education and Sports Sciences, as well as to prepare measures of these two concepts. To fit the needs of the current study, the researchers employed a descriptive technique that included predictive studies, correlational correlations, and the survey method. Students from the College of Physical Education and Sports Sciences, comprising 110 male and female students, were part of the research community. For the academic year 2023-2024, there were 81 male students and 29 female students at the University of Kufa. The proportional selection approach and the random stratified method were used to choose the research sample. One of the crucial phases and phases in the research process is the selection of the study sample. Among the researcher's most significant findings are the following: Students at the College of Physical Education and Sports Sciences exhibit both emotional involvement and cognitive dependence, and the researchers' emotional engagement and cognitive dependence scales are valid. Among the researchers' most crucial suggestions is the following: Paying attention to the cognitive skills and scientific experiences of College of Physical Education and Sports Sciences students and using them to improve the nation's educational standing, and conducting ongoing courses to lessen cognitive dependency among College of Physical Education and Sports Sciences students.

Keywords: Yoga, pranayama, aged women, breath holding capacity, vital capacity

Introduction

The lack of interest and seriousness of students in educational activities is a major challenge facing the educational system, which constitutes a deficiency in full engagement in educational activities, and the lack of a university culture directed at students' harmony with the requirements of scientific research and its full potential, which may contribute to how the student exists in the university environment and faces academic challenges and factors surrounding the student.

The decrease in (learner's motivation) to engage in academic tasks and continuous study and the weak ability to communicate with professors in the classroom also leads to a decrease in emotional and cognitive motivation. It is expected that learners who know that they lack self-motivation will avoid performing the task (Marwan bin Ali Al-Harbi. 2015) [2] Radhi, M. N., Oleiwi, A. H., and Jerri, Z. A. (2024) [7].

Emotional engagement also includes feelings, attitudes and perceptions of the learning environment that motivate the learner to start and continue learning activities, as well as feelings of belonging, participation and cooperation with colleagues, while behavioral engagement includes the use of learning strategies that aim to stop behavioral patterns far from continuing the learning process, while cognitive engagement includes a sense of competence and a desire to make an effort during the learning process (Ahmed Ghaeb Hussein. 2020) [3]. Cognitive dependence is one of the problems of our current era, where we find the individual relying on others to obtain knowledge and not relying on himself (Ayam Wahab Razzaq. 2020) [4]. Therefore, when people are forced to rely on others to solve their problems and meet their needs, they put themselves in situations that encourage repression

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and suppression (Aboode, M. A., Radhi, M. N., & Shaalan, R. A. 2022) [8]. As long as people remain in a role of dependence, they need the goodwill of others and feel the need to refrain from expressing themselves for fear of offending those who are credited with it. This is what we see in most students from the sports and physical education faculties sciences, with neglect, indifference, and reliance on others to obtain information and matters related to the academic aspect.

Research Problem

The research problem is to identify emotional involvement and cognitive dependence among College of Physical Education and Sports Sciences students, as students' unwillingness to be involved is one of the problems they may face and affects their behavior during the learning process and determines their abilities to stay up with the scientific developments occurring currently. Also, the inability of the individual to bear the responsibilities assigned to him may lead to dependent behavior. I do not forget to point out the great importance of the segment among pupils from the Sports Sciences and Physical Education Faculty, as they represent the nucleus of distinguished youth who are relied upon to achieve scientific progress for themselves and their societies. Hence, the current research's issue emerges.

Research Objective

- Preparing scales of emotional involvement and cognitive dependence among pupils from the Sports Sciences and Physical Education Faculty.
- Identifying emotional involvement and cognitive dependence within the Faculty of Sports Sciences and Physical Education.

Research Theories

Emotional engagement and cognitive dependence throughout the College of Physical Education and Sports Sciences student body.

Domains of Research

- **Human field:** University of Kufa students enrolled in the College of Physical Education and Sports Sciences.
- **Time frame:** January 12, 2023, until January 1, 2024
- **Field of study:** University of Kufa College of Physical Education and Sports Sciences.

Definition of terms

1. **Emotional engagement:** It is the emotions that the student perceives in the form of strong reactions that have a motive effect on behavior, and in which the emotions are either pleasant, represented by curiosity and enjoyment, or unpleasant emotions, represented by anxiety, anger and boredom.
2. **Cognitive dependence:** The individual's tendency to obtain help from other people in making important decisions because he receives help from them due to his inability to do his own work as a member.

Fieldwork techniques and research methodology

Methods of Research

To fit the nature of the study, the researchers employed a descriptive methodology that included correlational correlations, predictive studies, and the survey method current study.

Research on communities and samples

Students from the College of Physical Education and Sports

Sciences, comprising 110 male and female students, were part of the research community. For the academic year 2023-2024, there were 81 male students and 29 female students at the University of Kufa. The proportional selection approach and the random stratified method were used to choose the research sample. One of the crucial phases and phases in the research process is the research sample.

Exploratory experiment sample

It consisted of (10) students from those not included in the research sample, such as the College of Physical Education and Sports Sciences.

Preparation and application sample

The preparation and application sample for the research measures (emotional engagement and cognitive dependence) included (100) male and female students from the University of Kufa's College of Physical Education and Sports Sciences.

Instruments, resources, and apparatus utilized in the study

The following instruments, methods, and gadgets were employed by the researchers to accomplish the study's goals.

1. Arab Includes references to international scientific sources
2. Electronic information network
3. Electronic calculator type (Pentium)/4
4. Pencils
5. Data recording form

Field research procedures

Aim of the emotional engagement and cognitive dependence scale

The aim of preparing the emotional engagement and cognitive dependence scales is to identify emotional engagement and cognitive dependence among physical education and sports science students.

Procedures for preparing the emotional engagement and cognitive dependence scales

The researchers adopted the emotional engagement and cognitive dependence scales of the researcher (Ghadeer Ali Abbas Al-Kriti. 2022) [1]. Appendix (1). It is a scale based on a sample of graduate students. Each of the 45 paragraphs on the scale has five possible answers: "completely agree," "frequently agree," "sometimes disagree," "rarely disagree," and "never disagree." The positive weights for each of these options are 5-4-3-2-1, while the negative weights are 1-2-3-4-5. Because the scale was initially created using a sample of graduate students, the researchers modified a few paragraphs to fit the sample's characteristics, the setting, and the efficacy of the method, which is students from the College of Physical Education and Sports Sciences.

Determining the validity paragraphs emotional engagement and cognitive dependence scales

A group of experts and specialists were shown the modified scale in order to determine the validity of the emotional engagement and cognitive dependence measures' components. No paragraph was eliminated for lack of statistical significance following a statistical analysis of the expert and specialist opinions and the application of the chi-2 test for independence to ascertain the significance of the difference between the expert opinions at a significance level of (0.05) and at a degree of freedom of (1). As indicated in Table (1), the majority of the scale's paragraphs were rewritten, leaving the 45 paragraphs intact.

Table 1: Shows the opinions of experts and specialists on the scale paragraphs and the values of the (Chi-2) for those who agree and disagree with the scale of emotional engagement and cognitive dependence

No.	Scale	Paragraph numbers in the field	Number of paragraphs	Number of experts		Percentage of Agree	Calculated value of (Chi-2)	Type sig
				Agree	Disagree			
1	Emotional engagement	-12-11-10-9-8-7-6-5-4-3-2-1 -20-19-18-17-16-15-14-13 -28-27-26-25-24-23-22-21 -36-35-34-33-32-31--30-29 45-44-43-42-41-40-39-38-37	45	9	1	%90	6,4	sig
2	cognitive dependence	-12-11-10-9-8-7-6-5-4-3-2-1 -20-19-18-17-16-15-14-13 -28-27-26-25-24-23-22-21 -36-35-34-33-32-31--30-29 45-44-43-42-41-40-39-38-37	45	10	0	%100	10	sig

3.84 is the table value (chi-2). One degree of freedom Level of significance = 0.05

Exploratory experiment

Its goal is to determine how clear the instructions or paragraphs of the emotional engagement and cognitive dependence scales are in their original form, as well as whether the paragraphs are sound and clear for the experimenter. It also aims to determine the best and most suitable approach for carrying out the main experiment, the clarity of the answer instructions for the research sample members, as well as the amount of time required to complete the success objectives orientations scale's paragraphs. Therefore, on Sunday and Monday, 15/12/2023, a sample of ten students from the College of Physical Education and Sports Sciences were given the scale through the Classroom program. The experiment revealed that the sample members comprehended the scale's instructions and paragraphs, and that, using the following formula, the average time to complete the scale was fifteen minutes:

$$\text{Arithmetic mean (test time)} = \frac{\text{Total answer time}}{n}$$

Applying the emotional engagement and cognitive dependence scales to the sample of numbers

In order to perform a statistical study of the scale between January 1, 2024, and February 1, 2024, the two research scales were applied to the sample of 100 male and female students.

Correction of the emotional engagement and cognitive dependence scales

The emotional engagement and cognitive dependence scales consist of (45) paragraphs that are corrected using a correction key that consists of five answer alternatives, which are (applies to me fully, frequently, occasionally, infrequently, or not at all—depends on the situation). For the positive and negative paragraphs, the corresponding weights

were 1, 2, 3, 4, and 5, respectively. As a result, pupils' greatest score on the scale is 225 points, while their lowest score is 45. The greater the student's score, the higher the level of emotional engagement and cognitive dependence he has.

Statistical analysis of the paragraphs of the emotional engagement and cognitive dependence scales

First: The paragraphs' capacity for discrimination emotional engagement and cognitive dependence scales

Since the achievement goal orientations scales consist of three goals, their total score cannot be added together, as there is no meaning to the process of This collection, so that each goal orientation will be treated separately as if it were an independent scale, starting from the characteristics and going through the results, as follows:

The researchers verified the paragraph's ability to discriminate (for all scales) using the two-party group method based on the results of (100) male and female students. The researchers took the following actions to determine the paragraphs' capacity for discrimination:

1. Setting the pupils' grades in order of highest to lowest on the scale.
2. Calculating the proportion of forms that received the highest grades (27%) and those that received the lowest grades (27%).
3. Using the Statistical Package for Social Sciences (SPSS), the discriminating coefficient for each domain's paragraph was determined individually and using the t-test (Independent Sample t-test) for two independent samples. Since the computed t-value was compared with the tabular value at a significance level of 0.05 and a degree of freedom of (136), the statistically significant t-value was regarded as a measure of the paragraph's discrimination, equating to (1.96). The test results for each paragraph are displayed in Table (5, 6).

Table 2: The upper and lower groups' arithmetic means and standard deviations, the computed t-value, and its significance are displayed in calculating the discriminating power of the emotional engagement scale.

No.	Upper group		Lower group		Calculated t-value	Type sig
	Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation		
1	4.88	0.51	3.30	1.41	7.81	sig
2	4.91	0.18	3.22	1.20	11.18	sig
3	4.94	0.13	3.01	1.23	13.16	sig
4	4.90	0.20	3.25	1.15	12.00	sig
5	4.91	0.22	3.55	1.21	9.41	sig
6	4.88	0.44	3.18	1.24	10.18	sig
7	4.97	0.21	3.20	1.10	12.44	sig
8	4.71	0.51	2.99	1.26	11.04	sig

9	4.92	0.33	3.15	1.24	11.70	sig
10	4.85	0.44	3.11	1.15	11.77	sig
11	4.52	0.82	2.98	1.19	8.81	sig
12	4.79	0.70	3.20	1.13	9.55	sig
13	4.83	0.43	3.00	1.11	12.10	sig
14	4.80	0.32	3.19	1.27	10.80	sig
15	4.94	0.30	3.00	1.20	11.70	sig
16	4.96	0.33	3.48	1.32	8.51	sig
17	5.01	0.01	3.45	1.24	10.23	sig
18	4.70	0.77	3.30	1.22	7.60	sig
19	4.71	0.70	3.14	1.22	9.30	sig
20	4.90	0.32	3.10	1.44	9.80	sig
21	4.81	0.41	2.99	1.20	12.71	sig
22	4.88	0.60	2.90	1.18	11.22	sig
23	4.80	0.37	3.11	1.13	11.27	sig
24	4.98	0.31	3.17	1.33	10.99	sig
25	4.91	0.29	3.00	1.36	12.09	sig
26	4.70	0.70	3.18	1.29	8.81	sig
27	4.87	0.42	3.51	1.44	7.70	sig
28	4.99	0.22	3.99	1.28	7.33	sig
29	4.90	0.11	3.33	1.48	9.30	sig
30	4.16	1.22	3.60	1.11	2.50	sig
31	4.11	1.25	3.55	1.20	2.90	sig
32	4.01	1.28	3.00	1.39	4.66	sig
33	4.54	1.02	3.26	1.41	6.32	sig
34	4.95	0.11	3.20	1.31	10.51	sig
35	4.88	0.44	3.44	1.26	8.88	sig
36	4.92	0.37	3.18	1.32	10.33	sig
37	4.41	1.08	2.09	1.29	12.39	sig
38	3.60	1.20	1.88	1.09	9.12	sig
39	3.62	1.41	2.00	1.28	7.19	sig
40	3.10	1.48	1.55	1.00	6.88	sig
41	3.11	1.51	1.80	1.34	4.94	sig
42	2.90	1.70	1.99	1.15	4.09	sig
43	4.99	0.12	2.19	1.22	19.09	sig
44	2.82	1.63	1.90	1.08	3.55	sig
45	3.60	1.60	2.29	1.43	5.00	sig

From observing Table (2), it becomes clear to us that all the paragraphs were distinct, and therefore the scale remains composed of (45).

Table 3: The arithmetic means and standard deviation for the upper and lower groups, as well as the computed T-value and its importance in determining the cognitive reliance scale's discriminating capability

No.	Upper group		Lower group		Calculated t-value	Type sig
	Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation		
1	4.88	0.55	3.30	1.44	7.85	sig
2	4.99	0.15	3.20	1.27	11.11	sig
3	4.90	0.17	3.09	1.27	13.11	sig
4	4.90	0.22	3.20	1.17	12.01	sig
5	4.98	0.20	3.55	1.26	9.40	sig
6	4.80	0.43	3.11	1.20	10.19	sig
7	4.92	0.20	3.21	1.15	12.49	sig
8	4.77	0.50	2.99	1.27	11.03	sig
9	4.90	0.33	3.15	1.20	11.78	sig
10	4.80	0.44	3.11	1.19	11.79	sig
11	4.55	0.80	2.94	1.19	8.88	sig
12	4.70	0.73	3.20	1.17	9.55	sig
13	4.80	0.41	3.08	1.19	12.13	sig
14	4.80	0.30	3.19	1.22	10.89	sig
15	4.94	0.34	3.00	1.20	11.79	sig
16	4.95	0.33	3.44	1.30	8.51	sig
17	5.01	0.00	3.44	1.23	10.29	sig
18	4.70	0.77	3.30	1.25	7.60	sig
19	4.77	0.70	3.11	1.20	9.31	sig
20	4.90	0.33	3.19	1.49	9.88	sig
21	4.80	0.44	2.99	1.11	12.70	sig
22	4.88	0.66	2.90	1.18	11.20	sig
23	4.80	0.33	3.10	1.14	11.22	sig

24	4.99	0.33	3.11	1.33	10.97	sig
25	4.90	0.22	3.00	1.33	12.00	sig
26	4.70	0.70	3.14	1.22	8.88	sig
27	4.80	0.43	3.54	1.40	7.71	sig
28	4.99	0.22	3.99	1.20	7.09	sig
29	4.90	0.11	3.38	1.47	9.39	sig
30	4.10	1.28	3.66	1.17	2.55	sig
31	4.10	1.22	3.50	1.23	2.90	sig
32	4.00	1.28	3.01	1.33	4.67	sig
33	4.50	1.01	3.29	1.48	6.39	sig
34	4.91	0.11	3.20	1.36	10.55	sig
35	4.82	0.40	3.42	1.23	8.80	sig
36	4.99	0.31	3.10	1.38	10.33	sig
37	4.40	1.00	2.08	1.22	12.33	sig
38	3.60	1.22	1.80	1.09	9.10	sig
39	3.66	1.49	2.01	1.29	7.13	sig
40	3.10	1.44	1.62	1.00	6.86	sig
41	3.20	1.52	1.91	1.30	4.91	sig
42	2.90	1.63	1.99	1.10	4.00	sig
43	4.92	0.12	2.19	1.22	19.09	sig
44	2.88	1.60	1.99	1.00	3.55	sig
45	3.63	1.69	2.22	1.40	5.01	sig

From observing Table (3), it becomes clear to us that all paragraphs were distinct, and therefore the scale remains composed of (45).

Second: Internal coherence

Because it represents the total score of all sample members, which numbered (100) students, the value of this indicator was extracted using the Statistical Package for Social

Sciences (SPSS) and Pearson's correlation coefficient between the score of each paragraph and the total score of the scale to which it belongs. The computed correlation coefficient value was compared with the crucial tabular value at a significance level of (0.05) and a degree of freedom of (255), which equals (0.124), in order to confirm the statistical significance of the correlation coefficient. Table (5, 4) illustrates this.

Table 4: The correlation coefficient between the paragraph score and the emotional engagement scale's overall score

No.	correlation value	Enter the sig	No.	correlation value	Enter the sig	No.	correlation value	Enter the sig
1	0.481	sig	16	0.335	sig	31	0.447	sig
2	0.577	sig	17	0.328	sig	32	0.550	sig
3	0.111	sig	18	0.435	sig	33	0.345	sig
4	0.597	sig	19	0.448	sig	34	0.596	sig
5	0.775	sig	20	0.417	sig	35	0.432	sig
6	0.527	sig	21	0.628	sig	36	0.408	sig
7	0.436	sig	22	0.445	sig	37	0.908	sig
8	0.326	sig	23	0.955	sig	38	0.796	sig
9	0.823	sig	24	0.840	sig	39	0.874	sig
10	0.936	sig	25	0.609	sig	40	0.676	sig
11	0.398	sig	26	0.552	sig	41	0.880	sig
12	0.483	sig	27	0.276	sig	42	0.925	sig
13	0.502	sig	28	0.342	sig	43	0.559	sig
14	0.436	sig	29	0.486	sig	44	0.621	sig
15	0.582	sig	30	0.311	sig	45	0.266	sig

Table 5: The correlation coefficient between the paragraph score and the overall cognitive reliance scale score

No.	Correlation value	Enter the sig	No.	Correlation value	Enter the sig	No.	Correlation value	Enter the sig
1	0.511	sig	16	0.622	sig	31	0.340	sig
2	0.607	sig	17	0.729	sig	32	0.451	sig
3	0.710	sig	18	0.631	sig	33	0.540	sig
4	0.691	sig	19	0.640	sig	34	0.610	sig
5	0.672	sig	20	0.710	sig	35	0.602	sig
6	0.622	sig	21	0.722	sig	36	0.701	sig
7	0.730	sig	22	0.702	sig	37	0.402	sig
8	0.621	sig	23	0.711	sig	38	0.390	sig
9	0.703	sig	24	0.710	sig	39	0.311	sig
10	0.616	sig	25	0.700	sig	40	0.315	sig
11	0.508	sig	26	0.602	sig	41	0.260	sig
12	0.633	sig	27	0.688	sig	42	0.220	sig
13	0.722	sig	28	0.522	sig	43	0.811	sig
14	0.730	sig	29	0.680	sig	44	0.233	sig
15	0.661	sig	30	0.318	sig	45	0.205	sig

From observing Table (5, 4), it becomes clear to us that all paragraphs were significant in relation to the scale's overall score, as their computed value exceeded the tabular value (0.124), and consequently the two scales remained composed of (45) paragraphs.

Psychometric properties of the emotional engagement and cognitive dependence scales

Validity

The researchers used two indicators of validity that are consistent with the nature of the emotional engagement and cognitive dependence scales.

For the scale to be considered valid,

Content validity was applied

By presenting their passages to a group of experts and specialists, the validity of the emotional engagement and cognitive dependence measures was confirmed, as was their suitability for measurement.

Constructive (hypothetical) validity

Both statistical methods were adopted, namely the two extreme groups and the internal consistency coefficient, which was determined by calculating the correlation between each paragraph's score and the overall score of the emotional engagement and cognitive dependence scales. This helped to confirm the validity of the scale by determining the paragraphs' discriminating ability. 3-4-8-2 Stability:

Half-split

In order to determine the homogeneity between the odd and even paragraphs, the half-split was computed by separating the odd paragraphs from the even ones. The correlation coefficient between the two halves was then calculated, and the result was (0.762). The Spearman-Brown equation must be used to determine the stability coefficient quantity for each item because this indicator represents half of the items. Following the statistical process for this equation, the whole scale's stability value reached (0.865), a high number signifying the scale's stability.

Cronbach's Alpha Equation

As opposed to the half-way method, which divides the test into two parts, this method divides the test into a number of

parts equal to the number of its paragraphs, meaning that each paragraph is a subtest. The idea behind this method is to calculate the correlations between the relationships of the group stability on all the paragraphs in the test.

All of the surveys were subjected to the Cronbach's Alpha coefficient in order to compute stability in this manner. The stability coefficient value, when applied to the equation, seemed to be (0.954), which is a high number for stability.

Main experiment

Researchers used the measures of emotional involvement in its final form and cognitive dependence in its final form to the sample in order to conduct the main experiment. of numbers in order to achieve the other research objectives.

Statistical Methods: All previous studies referred to the statistical methods used in processing their data. The most prominent of these statistical methods were (arithmetic mean, mean standard error, skewness coefficient, flatness, median, mode, range, Pearson correlation coefficient, regression equation, one-way analysis of variance, chi-square test, three-way analysis of variance, t-test for one sample, and t-test for two independent samples). Thus, the researchers relied on these same statistical methods.

Results and Discussion

Identifying emotional engagement throughout the College of Physical Education and Sports Sciences student body

In order to verify the objective, the researchers analyzed the answers of the basic research sample of (100) students of the College of Physical Education and Sports Sciences. On the emotional engagement scale, the researchers found that the arithmetic mean of the research sample (139.799) with a standard deviation of (6.618). When comparing the arithmetic mean with the hypothetical mean of the scale of (135), and after choosing the significance of the difference between the two means using the t-test equation for one sample, The computed t-value reached 9.779, which is higher than the tabular t-value (1.96) at a significance level of 0.05 and a degree of freedom of (38.3), suggesting that there was a difference between the two means and in the direction of the sample mean. This suggests that emotional engagement is higher than usual among College of Physical Education and Sports Sciences students. According to Table (6).

Table 6: The results of the t-test to identify the discrepancy between the hypothetical mean and the arithmetic mean of the research sample members' emotional engagement scale scores

Variable	Number of people	Arithmetic average	Typical deviation	hypothetical mean	t-value		Degree of freedom	Type sig
					Calculation	Tabular		
emotional engagement	100	139.799	9.618	135	9.779	1.96	383	sig

The researchers explain this result by saying Something the College of Physical Education and Sports Sciences students find enjoyable good emotional engagement, meaning that they are engaged in educational activities, discovery, and seeing everything new, in addition to the students' increasing awareness, eagerness to learn, and technological openness to obtain the greatest amount of information and knowledge. This is what the theory adopted by the researchers emphasized, that the students' emotional engagement fully explains the motivation and its relationship to achievement, and the changes that occur in engagement lead to changes in the learning environment. This result is consistent with the theoretical vision that emphasizes that motivation and

engagement are linked to each other, meaning that motivation is a special process, whether biological or psychological, so it is at the forefront of observed behavior. The College of Physical Education and Sports Sciences students also have internal motivations, as they enjoy high engagement and enjoyment in dealing with information and sources. Motives are the basis that leads to high-quality classroom engagement, and thus students produce good classroom performance to improve their capacity to learn and achieve the desired goals and everything new in the field of knowledge, and also in order to link the self-more strongly with others in the social aspect such as values. Common and common goals and to the extent that students reach in settling and assembling external

systems so that they have a relatively more positive level of independence in the field of the relationship and this includes the field of the university.

Identifying the cognitive dependence of college students studying sports sciences and physical education

The researchers examined the responses of the basic study sample, which consisted of one hundred students from the College of Physical Education and Sports Sciences, in order to confirm the objective. The researchers discovered that the research sample's arithmetic mean (134.966) and standard

deviation (14.609) on the cognitive reliance scale. After determining the significance of the difference between the two means using the t-test equation for a single sample, the arithmetic mean and the hypothetical mean of the scale of (135) are compared. Since the computed t-value was less than the tabular t-value (1.96) at a significance level of 0.05 and a degree of freedom of 38.3, it seemed that there was no difference between the two means. According to Table (7), this suggests that students at the College of Physical Education and Sports Sciences suffer from cognitive reliance.

Table 7: The results of the t-test to determine the difference between the hypothetical mean and the arithmetic mean of the research sample members' scores on the cognitive reliance scale

Variable	Number of people	Arithmetic average	Typical deviation	Hypothetical mean	The t-value		Degree of freedom	Type sig
					Calculation	Tabular		
Cognitive dependence	100	134.966	14.609	135	0.045-	1.96	383	Non sig

The researchers interpret this result in light of Cattell's theory, which sees that the traits of individuals are in different areas, including personality that differs from one individual to another, emotional, temperamental, and social. Because students currently enrolled in the College of Physical Education and Sports Sciences are going through cognitive and academic pressures that have contributed significantly to the formation of what is called cognitive dependence at this important stage of their scientific and social career, which sees that the individual behaves according to what this emotional pressure dictates to him (Duane Schultz. 1983) ^[5] (Ashour Musa. 2018) ^[6].

Conclusions and Recommendations

Conclusions:

1. The validity of both the emotional engagement and cognitive dependence scales that the researchers prepared.
2. The College of Physical Education and Sports Sciences students exhibit cognitive dependency and emotional engagement.

Recommendation

1. Paying attention to the cognitive skills and scientific experiences of College of Physical Education and Sports Sciences students and using them to enhance the nation's educational landscape.
2. Conducting ongoing training to lessen cognitive dependency among College of Physical Education and Sports Sciences students.
3. Organizing workshops and seminars to increase the emotional investment of College of Physical Education and Sports Sciences students.

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Appendix 1

Emotional Engagement Scale

No.	Paragraphs	Totally agree	Mostly agree	Sometimes	Rarely disagree	Never disagree
1	I have a desire to know more about life.					
2	I constantly inquire about scientific phenomena.					
3	I have a desire to research scientific topics to obtain information and ideas about them.					
4	I employ the information I obtain in performing a new skill.					
5	I use the desire to obtain everything new in the study materials.					
6	I feel the desire to read external books to obtain more information.					
7	I have the desire to know the facts behind the things around me.					

8	I find alternative solutions to ambiguous situations.					
9	I discuss future ideas from the curriculum with my colleagues outside the classroom.					
10	I enjoy tasks that require me to reach multiple solutions.					
11	I forget my personal problems when I am busy performing study tasks.					
12	I follow the teacher's explanation with interest and focus.					
13	I enjoy my study experiences and expertise.					
14	I feel satisfied when I succeed in my studies.					
15	When I excel in my studies that is a reward for me.					
16	I lose the sense of time when I study.					
17	I feel happy in situations of success, perseverance and challenge.					
18	I enjoy the activity that requires deep thinking.					
19	I feel anxious when I face ambiguous study situations.					
20	I worry when I cannot solve a question.					
21	I get confused because of the pressure to perform my study tasks.					
22	I feel shy when I get a low grade in an exam.					
23	I get nervous when I do not understand the study material.					
24	I work on reviewing the material before the exam time.					
25	I get nervous because of the difficulty of the study topics.					
26	I feel anxious during exams.					
27	I get nervous when I read exam questions.					
28	I get angry when my colleagues try to distract me from the lesson.					
29	I feel that I get angry quickly in situations that do not suit me at university.					
30	I get annoyed by my colleagues' attempts to create chaos in the classroom and disrupt the course of the lesson.					
31	I get angry when my colleagues talk to each other during the lecture.					
32	I get angry quickly when I see something that does not make me comfortable in my study life.					
33	I get upset when the professor does not treat me fairly with my colleagues.					
34	I get angry if one of my colleagues at university makes fun of me.					
35	I get angry when I am criticized by the professor in front of my colleagues.					
36	I get upset when the teacher ignores my homework.					
37	I get upset when the teacher treats us harshly.					
38	I get bored when the teacher does not use visual aids.					
39	I lose the ability to concentrate when the teacher gives us too much information in the lesson.					
40	I get frustrated when I do not get the grade I deserve.					
41	I get bored when the number of students is too large.					
42	I feel that the lesson time passes slowly when the teacher uses traditional teaching methods.					
43	I get upset when the teacher scolds me in front of others.					
44	I get sleepy from repeating the lesson several times.					
45	I get bored when I find it difficult to understand the material.					

Cognitive dependence scale

1	I feel reassured when I am close to my professor.					
2	I feel upset when others oppose my decisions.					
3	I feel uncomfortable when I am assigned a study assignment.					
4	I am influenced by the opinions of my colleagues at university.					
5	I feel that I am unable to take care of myself without the help of others.					
6	I feel confused when I am assigned something.					
7	I feel nervous about what others think of me.					
8	When I have to make a decision on my own, I feel anxious and upset.					
9	I am afraid to stand in the classroom and speak in front of my colleagues.					
10	I would rather live with someone else than live alone.					
11	I feel nervous about things that are not clear to him.					
12	I suddenly start shaking for no apparent reason.					
13	I feel that he has problems that I cannot solve.					
14	It is easy for him to make decisions on his own.					
15	I feel relieved when someone notices my achievements.					
16	I feel that my ability to learn is limited.					
17	I find it difficult to express an opinion.					
18	I need the support of my friends and family.					
19	I rely on others for crucial decisions.					
20	I prefer to work in groups while doing homework.					
21	I find it difficult to start new projects.					
22	I get high grades when others help me.					
23	I trust my abilities when making a decision.					
24	I ask others to sit next to me when I do any work.					
25	I need support from my peers when choosing my major.					
26	I am easily convinced by the ideas of my classmates in the hall.					
27	I ask my classmates for help with homework even if I am not convinced by it.					

28	I find myself unsure of my ideas and actions unless I get the approval of others.	
29	I need support from my family and friends in building social relationships.	
30	I have difficulty convincing others about me.	
31	I try to be in a relationship to feel comfortable.	
32	I prefer others to be responsible for me.	
33	Others consider me a strong person.	
34	I get involved with someone else when I fail in a relationship.	
35	I try to succeed in my relationships with others.	
36	I see myself as an outcast in society.	
37	I am unable to take care of myself without the help of others.	
38	I agree with others even if it is contrary to what I believe.	
39	I care a lot in my relationships with others about what they can do for me.	
40	I change my mind to agree with others.	
41	I am easily persuaded or influenced by others.	
42	I exaggerate my need for others to support me.	
43	I feel that I am a person independent of others.	
44	Without the support of others close to me, I can be helpless.	
45	I fear that I will lose the support of others if I do not agree with them.	