

The Effect of the Control Center According to the Attribute (Male and Female Students) in the Cognitive Achievement of Tennis

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1-Introduction And Importance Of The Research

There is no doubt that cognitive achievement is affected by other processes, including mental processes, and since the learner is an object when it is characterized by integration and comprehensiveness, and its cognitive aspects cannot be isolated from emotional or psychomotor, and since the teacher who is good at teaching his students, is also good at identifying the variables affecting the learning process. Which is related to the academic performance of the learners. From this point of view, the teacher must understand that the learning that takes place within the framework of the mind and thinking is the learning that continues and lasts, as the cognitive domain includes forms of intellectual activity, especially mental processes.

The perception of the learner relationship between behavior and responses in the environment and the extent of his sense of personal responsibility towards the events is the basis for Atsaf its internal or external control, essence control ear is the belief of a link between the act and the result is a control center building psychologically refers to a belief of learners whether they personally caught what is happening to them and control it ,in those who show restraint internally tend to believe that their behavior in attitudes affect the results of their work, they face events with courage and what happens to them motivates them to work tougher and stronger re Control and control of the environment, meaning that they are able to adapt and modify their behavior when events become out of their control .Those who show external control tend to attribute their results to external factors .Where they described the degree of weak sense of personal responsibility for the results of their actions as well as their lack of control over events in the environment and everything that happens to them outside the scope of their will , and that external factors related to luck and chance and fate and control of the other yen . ([2]) , ([1])

The factorial analysis of variance method is GLM 3 (is one of the efficient statistical methods in data analysis, as it was possible to search for the effects of several independent variables (and how to interact between these variables) .It highlights the importance of the analysis method ANOVA. The independent factor in this study, through the ability to study the effect of several independent factors (adjective, control center) and the interaction between them on a specific

phenomenon (cognitive achievement of tennis), and the researcher is interested, through this method, to study whether this effect is different between male and female students .

Accordingly , the importance of the current search show through the development of a knowledge framework for the independent effects of the variables of search (adjective, control center) and the impact of the interaction between them on the cognitive achievement of their contribution to the E meeting light on the use of control center and knowledge of the current reality and take into account when teaching tennis material and the preparation of programs of learning appropriate in light of this fact.

2-1. research problem:

The researcher identified the problem of the current research with the following questions:

- Are there differences in the cognitive achievement of the material of tennis at the third stage students in the Faculty of Physical Education and Sports Science Baja spangle Muthanna for the school year (2020 , (2021 - according to the levels of the control center ?
- Do the different character (students, students) impact on the cognitive achievement of the material of tennis at the third stage students in the Faculty of Physical Education and Sports Science Baja spangle Muthanna for the school year (2020 ?(2021 -
- It is the interaction between the two variables (character and center control (impact on the cognitive achievement of the material of tennis at the third stage students in the Faculty of Physical Education and Sports Science Baja spangle Muthanna for the school year (2021-2022)?

3-1. Research Objectives:

The current research aims to identify :

Differences in cognitive achievement of the material of tennis at the students stage third in the Faculty of Education Physical Science and Sports at the University of Muthanna for the year of study (2021 - 2020) according to the control site levels .

Differences in cognitive achievement of the material of tennis at the students stage third in the Faculty of Education Physical Science and Sports at the University of Muthanna for the year of study (2021 - 2020) by capacity (students, students) .

The impact of the interaction between the patterns of the center of control and status on the cognitive achievement of the material of tennis at the third stage students in the Faculty of Physical Education and Sports Science at the University of Muthanna for the school year (2020-2021).

1-4. Research Hypotheses:

There is a significant effect of the control center on the cognitive achievement of the material of tennis at the third stage students in the Faculty of Physical Education and Sports Science at the University of Muthanna for the school year (2020 (2021 - at the level.(0.05)

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There is the effect of a connotation of recipe (students, students) on the cognitive achievement of the material of tennis at the students stage third in the Faculty of Education Physical Science and Sports at the University of Muthanna for the year of study-2020) (2021at the level.(0.05)

There effect is an indication of the interaction between the control center and the character on the cognitive achievement of the material of tennis at the students stage third in the Faculty of Education Physical Science and Sports at the University of Muthanna for the year of study - 2020) (2021at the level. (0.05)

1-5. Research Areas:

I. Human field: Students stage third in the Faculty of Education Physical Science and Sports at the University of Muthanna for the year of study. (2021-2020)

Second area Temporal: for the period (2020/ 12 / 5) and up.(2021/ 5 / 28)

Third - the spatial domain: the classrooms of the College of Physical Education and Sports Sciences at the University of Al-Muthanna.

1-6. Experimental Research Design:

The researchers adopted a design ANOVA (Independent factorial) analysis ANOVA binary) an experimental design for the current research.

external		internal		Adjustment center levels
female students	s tudents	female students	s tudents	Adjective

Striped(1)

Experimental design for research

1-7. Community Search:

Statistical society includes current research on the third stage in the Faculty of Physical Education and Sports Science students at the University of Muthanna for the school year (2020-2021). The size of this community reached (72 (male and female students, of whom (48) male and (24) female students . A sample of (15) male and female students was drawn from that community, and this sample was drawn by the stratified random method, and this sample represents a sample of exploratory experiments. The achievement test and the standardization of the questionnaire (control center) were built on all the vocabulary of the community, which numbered (72) male and female students.

1. 8 -Data Collecting Method:

The researchers adopted the control center questionnaire as well as the tennis achievement test as main means of data collection in the current research.

✓ Resolution (control center):

The researcher adopted a questionnaire) Ali Sakr^([3]) (2002 ,To measure (the control center), which is mainly prepared for the Iraqi environment,the questionnaire consists of two dimensions:

- The internal dimension , which is represented by the fields) the individual's efforts , his personal capabilities ,(and the number of its paragraphs is (25) paragraphs . .They are answered as follows :Totally agree (4) degrees ,agree (3) degrees ,reject (2) degrees ,completely reject 1) point.(
- The external dimension is represented by the domains) luck ,chance ,fate, the complexity of life and the control of others . (The number of its paragraphs is . . (25) They are answered as follows :Totally agree (1 degree) degrees ,agree (2) degrees ,reject (3) degrees ,completely reject (4) degrees.

Accordingly,the highest possible score that the student obtains is (200) degrees and the lowest score is (50), and thus the theoretical average of the scale is (125) degrees, where whenever the degree of the respondent is higher than the theoretical average, this is an indication that he has an internal control position. If its degree is less than or equal to the theoretical mean, then it has an external position of control.

9 -1ratified the results of the method ie of:

The researcher adopted the (Loach) method^([4]) to calculate the sincerity of the arbitrators, through the presentation of Alastba NH on a group of specialists in psychology , calendar and measurement, and the number (10) for the purpose of knowing their views on the extent Salahit e in measuring) control center (at the school students third in the Faculty of Physical Education and Sports Science Muthanna University , has won t Alastba FT expert agreement rates (%100) ,reaching grade of honesty (1,000) which is greater than⁽¹⁾ (62 .) which shows the sincerity of the results of questionnaire NH.

1-10. Consistency of the Questionnaire Results.

The researcher adopted the way retail mid - term to check the stability Alastba NH (center control) as divided paragraphs into two halves (paragraphs bearing the individual figures and passages that bear even numbers) were then extracted correlation coefficient between the total degrees halves Alastba NH using the coefficient of simple correlation (Pearson) which amounted to)0.760 .(In order to obtain the stability of the resolution as a whole, the (Getman) equation was used, where the value of the total reliability coefficient was) 0.850 (Where E) n stability coefficient is in fact correlation coefficient with the same scale ,^([5]) (the reliability coefficient the count is high, because the square value is equal respectively) 0.72 (And Hattan thrown Meh sandwiched between)0.5 – 0.75 (Fmaaml correlation is high and strong relationship E .The value was within this indicator.^([6])

Table(1) : The value of the stability coefficient and the value of the Gottman coefficient

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coefficient value (getman)	variance			Coefficient of stability			variable
	total	the other half	Half of a well	The connection between the two halves	the other half	first half	
.8500	67.483	14.930	23,858	.7600	.4900	0.692	control center

1-11. Procedures for constructing the achievement test:

First - Preparation of the specification table:

Table specifications include the following ([8]) ([7]) :

1. The content of the material to be measured , and the content can be broken down into areas or sub-vocabularies for more accuracy and comprehensiveness in the measurement process .
2. The relative importance of each area of the content of the material is reflected in percentages.

The relative importance in the current research was determined by :

Determining the number of pages of the study unit divided by the total pages of the book) the semester (and multiply the result by .(100) See table .(2)

3. The behavioral goals that the test designer seeks to know the extent of their achievement , and the number of these goals in percentages that reflect their relative importance.
4. The total number of questions for the test - set by the designer - and here it should be noted that the researcher specified his test and in the light of its fields with (30) items.

For the purpose of determining the number of questions) paragraphs (for each of the test areas , use the following equations:

1. The number of questions for each of the content areas , and is extracted using the following equation :

$$\frac{\text{Total number of questions} \times \text{field relative importance}}{\text{The number of questions for each domain}} = 100$$

2. The number of questions for each behavioral goal or cell and extracted using the following equation :

$$\frac{\text{The sum of the questions for one domain} \times \text{the relative importance of the objective}}{\text{The number of questions for each goal}} = 100$$

Table (2) Table of specifications for the achievement test for tennis for students of the third stage

total questions for the field	Number of questions for each behavioral objective	behavioral goals			Relative importance	Content areas	
		Application (% 40)	understanding (% 10)	Knowledge (% 50)			
7.5	1.2	0.5	0.1	0.6	4	getting ready	Fundamentals and principles of the game
	4	1.6	0.4	2	13	The grip and its types	
	2.3	0.9	0.2	1.2	8	feet movements	
9.3	2.3	0.9	0.2	1.2	8	Ground forehand	basic skills for the game
	5.8	2.3	0.6	2.9	19	ground backhand	
	1.2	0.5	0.1	0.6	4	Forward Flying Strike	
13.2		5.3	1.3	6.6	44	The rules and principles of the game	
30		12	2.9	15.1	%100	the total	

Second - Preparing and compiling the test items:

The researcher relied on scientific sources and references in the field of specialization, as well as the open questionnaire that was directed to the teachers who teach tennis, in which they were asked to include samples of paragraphs for an achievement test of its type (true or false).

Third - Determining the validity of the test items:

After preparing the test items in its initial form, which numbered (30) items, they were presented to (10) experts and specialists, in the form of a questionnaire .To represent the domains and classes they belong to , and whether they need to be modified or added.

After collecting data and discharged used the researcher test) Ka^2 to identify the good of the other paragraphs , the results indicate acceptance of all paragraphs because they have made a valuable greater than the value of) Ca^2 crosstab of the grave of (3.84) at the degree of freedom (1) and the level of significance) 0.05.(

Fourth - The Exploratory Experience :

The researcher conducted an exploratory experiment on a sample of (15) male and female students,who were selected by the stratified random method.

The results of the experiment were very encouraging because of the students' enthusiasm in accomplishing what was asked of them , and the seriousness of the assistant work team in following up on the students' answers to the test items to the fullest , and reading the instructions to the students and others.

Fifthly - Extracting the coefficient of difficulty and ease of test paragraphs:

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Finding the coefficient of difficulty and ease of paragraphs requires following the following steps: ([9])

- Arrange the scores obtained by the testers in descending order from the highest score to the lowest score
- . Deduction ratio (%50) members of the sample) construction sample , (their number of 72 students from the top , and the deduction percentage (%50) members of the sample from the bottom who Hsalo of the lowest grades to indicate single out low - grade , as the number of upper - class students (36) male and female students, and the number of students of the lower class is.(36)
- Find the number of students who answered correctly for the paragraph in each of the two groups.
- Extracting the paragraph's ease coefficient through the equation of ease and difficulty.
- Extract the difficulty coefficient of the paragraph , by subtracting the coefficient of ease obtained from paragraph (4) from the value.(1)
- The designers recommend the test data to exclude paragraphs less difficult for (0.10) or more than. ([10]) (0.90)

After statistically processing the scores for the construction sample , no paragraph was excluded from the test because it was within the recommended limits.

Sixth - Extracting the discrimination coefficient:

It means a factor of discrimination) the ability of paragraph to distinguish between individuals with upper marks and individuals with lower marks . ([11]) (To find the coefficient of discrimination, the equation for the coefficient of discrimination is used. After applying the paragraphs (3 , 2 , 1) that were used in finding the coefficient of ease and difficulty, According to what was reported by) Ebel,Ebel)from criteria for comparing discriminative ability , ([12]) (no paragraph of the test was excluded.

Seventh - Correlation coefficient between the item's score and the total score of the test :

To find the sincerity of internal consistency coefficient was used Pearson (between the degree of items total score of the test , and members of the construction sample totaling 72 students , and to find out the type of statistical significance of the researcher used the test) T) for the significance of the differences, which showed the significance of all correlation coefficients , where all values of the cumulative function of the distribution(T (Associated with the values of coefficient) Pearson (greater than) 0.05 (This is not ruled out any paragraph of the test.

Eighth- The validity of the test results:

The coefficient of this discrimination honesty was calculated by finding the correlation between the means of higher scores.(%50) (of students, and lower grades.(%50) (of the students .After applying the two-original correlation equation, it was found that the value of the

validity coefficient is equal to) 0.88 ,(which is statistically significant at the degree of freedom (60 (and the level of significance.(. 0.05) (.This indicates the validity of the test.

Ninth -Stability of test results:

The researcher said in calculating the coefficient of stability test method of analysis of variance and the equation (Kiodr - Rijardson) and adopt this equation in the stability calculation on the amount of variation between individuals and the variation of error.To achieve this, the researcher used the analysis of variance for repeated measurements of the test scores, for the research sample, and from the results of the analysis of variance referred to in Table (3) according to the reliability coefficient of the Kewder-Rigardson equation, which was presented in the same table.

Table: (3) Results of the analysis of variance for repeated measures and reliability coefficients

Interpretation coefficient	stability coefficient	mean squares MS	degree of freedom	sum of squares SS	Contrast source
94%	0.97	0.237	29	6.861	between groups
		6.015	71	427.072	Between individuals
		0.207	2059	427.072	interaction (error)

Since the reliability coefficient is a correlation coefficient of some kind - the reliability coefficient is in fact the coefficient of the test's correlation with itself - and since the coefficient of the joint interpretation of the reliability mentioned in Table (15) is greater than (50%), the stability coefficient of the form is good, as the coefficient of stability is The stability is good if its common interpretation coefficient is greater than. ([13]) (%50)

2-1. Classification of Students According to The Levels of The Control Center:

The researcher now divided the students according to the values of the independent variable (the control center) into categorical levels - two categorical levels ,which are:

- Internal : their number is (48) male and female students.
- External : Their number is (24 (male and female students .

3-1. Statistical Means and Equations Used in the Research

The researcher used the statistical bag) spss (to process the data and show the results.

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4-1. Statistical description of the results of the cognitive achievement of the third stage students according to the two variables) adjective - student, student - control center):

Table (4) Arithmetic means and standard deviations of students' cognitive achievement according to (adjective - student, student - control center)

Standard Deviation	SMA	The Number	Variables	
			control center	Adjective
3.185	18.167	18	external	Student
2,638	18.933	30	internal	
2.847	18,646	48	the total	
1.751	21.333	6	external	student
3.353	18,778	18	internal	
3.202	19,417	24	the total	
3.183	18.958	24	external	
2.893	18,875	48	internal	
2.970	18.903	72	total	

When studying the table) 4 (N Note that there is relatively little difference in the cognitive achievement between the demand in August who are characterized by an external tuning center, students who are characterized by internal control center, where the external rate was increased by (%18) and by the internal .(%19) We also find that there is a relatively large difference between the female students who excel in an external position of control, and the female students who are distinguished by an internal position of control, where the external average was .(%21) As for the internal, it came by.(%19)

5 1-1Results of a comparison of the division of the impact of the trait (differences in cognitive achievement according to the trait):

Table(5) The difference between an adjective and a confidence level

Indication level	standard error of the difference	The difference between the mean of the two levels
.3030	.7420	-0.771

When studying Table ,(5) which includes the results of comparisons for the main effect of the trait - the division of the effect of the trait - which tests whether the average of the group of students is different from the average of the group of female students , as it appears that the value of the difference between these two averages) -0.771 .(It seems that the difference is not significant (significant value equal to0.303 (which is greater than) 0.05.(

Table(6) Differences in cognitive achievement according to trait levels

Values) F(mean squares	degrees of freedom	sum of squares	Contrast source
Statistical significance	Value level	calculated				
insignificant	0.303	1.079	9.507	1	9.507	between groups
			8.812	70	616,813	within groups
				71	626,319	total

looks from the table) 6)that the significance value of the ratio(F (for the effect of the adjective pattern on cognitive achievement is small (because $0.05 > p$ This means that the effect of the students is not different from the effect of the female students.

1- 6 . results compared to the impact of the division of control center (differences in cognitive achievement according to the control center

Table (7):The difference between control center and confidence level

Indication level	standard error of the difference	The difference between the mean of the two levels
.9120	.74 80	.0830

It appears from Table (7) that the value of the difference between these two averages) 0.083 .(It seems that the difference is not significant (significant value equal to 0.912 (which is greater than (0.05).

Table(8) Differences in cognitive achievement according to the control center levels

Values (F)			mean squares	degrees of freedom	sum of squares	Contrast source
Statistical significance	Value level	calculated				
insignificant	0.912	0.012	0.111	1	0.111	between groups
			8.946	70	626.208	within groups
				71	626,319	total

It appears from Table (8) that the significance value of the ratio) F (for the effect of the control center on cognitive achievement is small (because $0.05 > p$ This means that the external effect does not differ from the internal effect.

7 1-1The results of comparing the division of the impact of the interaction between the control center and the trait (the differences in cognitive achievement, the interaction between the control center and the trait:

Table: (9) Differences in cognitive achievement according to the levels of interaction between the control center and the trait

F-Value	Mean	Degrees Of	Sum Of	Contrast
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Statistical Significance	Value Level	Calculated	Squares	Freedom	Squares	Source
insignificant	0.160	1.776	15.169	3	45,508	between groups
			8.541	68	580.811	within groups
				71	626,319	total

Ration (F)of the effect of the interaction between patterns of brain dominance and trait on cognitive achievement is small (because $0.05 > p$).This means that the interaction effect between the levels of the control center and the trait for students is not different.

18 -1Conclusions:

1. Whatever the type of control center for the student,it does not affect the cognitive achievement.
2. The control center volume has little effect on collection.
3. Whatever the type of the students' quality (student or student) , it does not affect the cognitive achievement.
4. Although the attribute (student, student) does not affect achievement, it has a large impact size.
5. There is no interaction between the trait and the control center - the interaction between the trait and the control center does not affect cognitive achievement.
6. Although the interaction between the trait and the levels of the control center did not affect achievement, it had a medium effect size.
7. 19Recommendations:
8. The classification of students according to the control center should not be taken into consideration when teaching tennis.
9. The classification of students according to the attribute should not be taken into consideration when teaching tennis.
10. Take advantage of designANOVAWorking in the fields of physical education research.
11. Conducting more research on the impact of independent variables and the interaction between them to find out the most influential ones to develop the necessary measures and solutions.
12. Generalization of the experimental design used in the current study to other samples.
13. Studying the effect of the variables used in the current study on the cognitive achievement of other academic subjects.

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