

THE EFFECT OF SITTING POSITIONS (STATIC) IN THE CLASSROOM ON THE LEVEL OF VISUAL ATTENTION EFFICIENCY AMONG STUDENTS OF AL-AMAL INSTITUTE FOR THE DEAF AND DUMB

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ABSTRACT

The current study aimed to identify the most appropriate (static) sitting positions for students according to their academic stages on class trips, assuming that there are no differences between the tests (efficiency of focusing attention) according to the sitting positions determined by the researchers for students who were selected from the grades (the sixth primary and the third intermediate) at the Institute Hope for the deaf and dumb, Al-Qadisiyah Governorate. If their number reached (30) students, taking into account their homogeneity in the variables (formal intelligence, chronological age, and some physical measurements). After that, the researchers applied his main experiment in the building of the Institute of Hope in Al-Qadisiyah for the period from 7-20/3/2019, using research tools, including the test (efficiency of focusing attention), which was applied in the form of stages during the working time of 8 am to 12:30 minutes, then the results obtained were analyzed using appropriate statistical methods using the (SPSS) program, from which the researchers concluded that the first and third sitting positions in which sitting straight with the backrest of the chair as well as the presence of a footrest is better than the sitting position for sixth grade students from The second in which the sitting is diagonal and at an angle of 40-50 degrees with the backrest of the chair in the test of the level (efficiency of focusing attention).

INTRODUCTION AND SIGNIFICANCE OF THE STUDY

Caring for people with special needs is one of the most important principles of community organizations, so we find a lot of research and studies that dealt with the problems faced by this group and put solutions to address them or shed light on them.

And from this segment, they are the deaf and dumb group that is present in all its society, including the Iraqi society. In the safety of the deaf child, sight is the only way to pay attention to the things around him, whether by image or speech and attention. A mental process that involves characteristics that distinguish it from other processes, the most important of which is selection,

selection, focus, intent, or inclination to the subject of attention (Fathi Al-Zayyat, 1995). Attention is affected by several factors, including what is related to the stimulus or the situation, and the other is related to the individual (Rafi Al-Zaghoul, Imad Al-Zaghoul: 2003). Therefore, we find that when the individual is in a state of tension and physical fatigue, his ability to pay attention and focus attention becomes very low (Adnan Al-Atoum: 2004). The place for students to sit in any school is determined by a chair and a table (the trip) that is unified for all students, so their sitting positions are determined. 'Students' sitting positions differ from one person to another, some of which are straight with the backrest of the chair and others are in a slanted manner or reclining on one side. etc. Some sitting positions

(static) have negative effects, as sitting for long periods leads to relaxation of the abdominal muscles and to a poor distribution of the weight of the individual, which in turn restricts “the flow of blood in the thighs and burial, which generates a feeling of discomfort” (Houhou Sarra, 2014). This feeling of discomfort is reflected On the student's psyche and in turn affects the effectiveness of his mental processes, including thinking, attention and focus, and from here the researchers went to study some (static) sitting positions of students and their relationship to their level of attention efficiency during the morning shift.

RESEARCH PROBLEM

Through the field researcher's briefing on the students' attendance at the Al-Amal Institute for the Deaf and Dumb, it was not noticed that tables (trips) are provided with heights commensurate with the ages of the students according to their educational stages. Thus, some tables may not be suitable with the students' physical measurements, which affects their sitting positions on those tables, and thus creates They have uncomfortable physical variables that lead to tension or physical fatigue, and this affects their level of attention efficiency (attention prolongation), which is certainly reflected in their concentration level in the classroom. The trip) effect on (the level of efficiency of visual attention) students during the morning shift.

1. Research Objective

- Identifying appropriate sitting positions for primary and advanced grade students.

2. Research Hypotheses

1. There are no significant differences between the mean scores of the test (attention focus efficiency) of the students according to the first sitting position at the study table.
2. There are no significant differences between the mean scores of the test (efficiency of focusing attention) of the students according to the second sitting position at the study table.
3. There are no significant differences between the mean scores of the test (efficiency of focusing attention) of the students according to the third sitting position at the study table.

SECTION TWO: SAMPLE AND COMMUNITY OF THE STUDY

The researchers chose a community and appointed it by the intentional method, and they are the students of the Al-Amal Institute for the Deaf and Dumb in the Diwanayah Governorate, whose number is (30) male students only, representing clubs (the sixth primary to the third intermediate), after which homogenization was conducted on them with the variables (intelligence, chronological age, attention test, some physical measurements), taking into account the absence of any injuries or pain in the vertebrae of the spine, and then they were divided into three groups, each group (10) students, as shown in Table (1).

Table (1) Shows the Homogeneity of The Sample with The Selected Variables

Variable	Scale Unit	Mean	Dev. Std.	Coefficient Of Difference *	Sig.
Visual Range	Degree	36.45	7.65	21	Homogeneous
Chronological Age	Per Year	13.16	2.54	19	Homogeneous
Attention	Degree	19.2	1.34	7	Homogeneous
Trunk Length	CM.	0.62	0.11	17	Homogeneous
Arm Length	CM.	0.78	0.09	12	Homogeneous
The Length of The Legs	CM.	0.82	0.18	2	Homogeneous

(*) Use the coefficient of variation instead of the coefficient of skew because the sample is less than (30). Whenever the coefficient of variation is less than (30), it indicates the homogeneity of the sample.

Research Instrument

Testing the competence of focusing visual attention: What is meant by the efficiency of attention is the ability of the examinee to maintain the level of attention, not for a length of time. In attention, the individual is required to direct his attention to a certain number of stimuli. Which hinders the concentration of attention of the convergence

between the stimuli present in the perceptual environment, and the test consists of a paper drawn on it with 25 zigzag and highly intertwined lines, and each line starts from the right side of the numbered square and ends on the left side at the unnumbered square. (Mohamed Shehata Rabie: 2009).

Test Instructions

The examinee sits quietly, a paper of zigzag lines is presented to him, and he is given a pen to trace each line from its beginning to its end. Then he writes the number of this line in the empty squares on the left. He must work quickly and accurately. The time of the experiment is 7 minutes. It is applied to small groups of no more than 5 individuals. The examinee before the specified time is given a reward of four degrees for every minute less than the given time.

Sitting Position Selection

In order to determine the appropriate sitting positions, the two researchers looked at the technical evidence form prepared by (Institute of "Prevention and Safety") and (International Labor Organization) (Geneva, 22), which states that the body position while sitting is proportional to the lengths and sizes of individuals, which reduces the sense of physical fatigue And muscle pain, especially the neck muscles Likewise, the researchers relied on the technique of the Australian scientist (Alexander 1896-1955), which is a technique recommended by doctors because it does not treat a specific symptom, but rather improves general health and increases attention and performance by consciously eliminating physical and psychological pressures as a result of bad habits (Al-Arab Newspaper, 2014). In this way, the researchers determined three fixed artificial sitting positions at the study table, taking into account the physical measurements of the students, as shown below:

First Position

Sitting at a right angle with the backrest of the chair and place the elbows of the hands on the side rests of the chair as shown in the following figure:



Figure (1) shows the first sitting position

The Second Position

Sitting at an angle of 40-50 degrees with the backrest of the chair and place the hands intertwined in front of the chest on the study table, as shown in Figure (2).

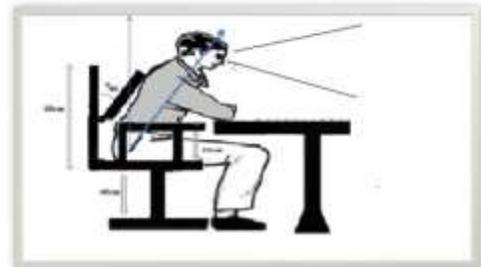


Figure (2) shows the second sitting position

The Third Position

Sitting at a right angle with the backrest of the chair and placing the elbows of the hands on the side rests of the chair, as well as adding a footrest with an inclined height at an angle of (10-15) degrees, subject to change, as shown in Figure (3).



Figure (3) shows the third sitting position

THE MAIN EXPERIMENT

The two researchers conducted the main experiment on the students of Al-Amal Institute for the Deaf and Dumb from the period 7-20/3/2022, if the days of the experiment were divided into sitting positions, starting from the first position, so each student would sit at the table (average) and according to the instructions for a table for a possible period. The researchers determined the sitting time of (30) minutes by 10 students at the same time. Thus, the actual experimental time becomes (150) minutes. And after the time ends, each student performs a test (the efficiency of focusing attention), and it is reapplied after every (10) minutes with the change of content. The numbers thus become for each student (3) tests in each sitting position.

PRESENTATION, ANALYSIS AND DISCUSSION OF THE STUDY RESULTS

Testing the first hypothesis:

The first hypothesis which states that there are no significant differences between the tests (efficiency of focusing attention) for students according to the first sitting position at the study tables (excursions), the researchers analyzed the results of the three tests that were applied to the students, as shown in Table (2).

Table (2) Shows the Arithmetic Mean, Standard Deviation and Sum of The Students' Responses in The Attention Focus Efficiency Test

The First Sitting Position	No. of Students	Mean	Std Dev.
The First Test	30	14.21	2.87
The Second Test	30	15.34	4.03
The Third Test	30	15.37	3.81

From the above table it is clear that the first test obtained an arithmetic mean of (14.21) and a standard deviation of (2.87), and in the second test the arithmetic mean was (15.34) and a standard deviation of (4.03), while in the

third test the arithmetic mean was (15.37) and a standard deviation of (813.). To ensure that there are differences between the average of the three tests according to the first sitting position, the researchers resorted to using the one-way analysis of variance test, as shown in Table (3).

Table (3) The Two Analyzes of One-Way Variance of The Attention Focus Efficiency Tests for Students According to The First Sitting Position

Variance Source	sum of squares	Freedom Degree	mean of squares	F Calculated Value	Sig.
Among Groups	13.432	2	6.716	0.863	0.5895
Between Groups	649.3	57	11.391		
Total	662.732	59			

The above table shows the value of (F) calculated for the three tests amounted to (0.589) with a level of significance (0.863), which indicates that there are no differences between the average of the three tests. Attention) to the students according to the first sitting position at the study tables. The researchers attribute this to the fact that "the first sitting position in which the sitting is at a right angle with the backrest of the chair and placing the elbows of the hands on the side rests of the chair is somewhat comfortable, which reduces the fatigue that the player may be exposed to by sitting for long periods, which contributes to improving the level of efficiency of focusing attention." This confirms that external factors, including the student's body position, directly affect attention, and whenever the sitting position is uncomfortable, it affects its level. This is confirmed by Helmy Al-Meligy that fatigue and exhaustion are among the important physiological factors that lead to a decrease or loss of alertness, that is, it is not possible to combine between fatigue and attention. (Helmy El-Meligy, 2004).

Testing the Second Hypothesis

The second hypothesis states which there are no significant differences between the tests (efficiency of focusing attention) of the players according to the second sitting position at the study tables (trips). The researchers analyzed the results of the three tests that were applied to the students, as shown in Table (4).

Table (4) The arithmetic mean, standard deviation and sum of the students' responses in the Attention Focusing Proficiency Test according to the second sitting position

The Second Sitting Position	No. of Students	Mean	Std Dev.
The First Test	4.43	14.53	30
The Second Test	3.44	11.75	30
The Third Test	2.41	12.58	30

From the table above, the total students' responses according to the second sitting position are shown in language with an arithmetic mean of (14.53) and a standard deviation of (4.43). In the second test, the arithmetic mean was (11.75) and with a standard deviation of (3.44), while in the third test the arithmetic mean was (12.58) and with a standard deviation (2.41). To ensure that there are differences between the average of the three tests according to the second sitting position, the researchers resorted to using the one-way analysis of variance test, as shown in Table (5).

Table (5) One-way variance analyzes of attention focus efficiency tests for players according to the second sitting position

Varia nce Source	sum of squar es	Freed om Degre e	mean of squar es	F Calcula ted Value	Sig.
Among Groups	195.78	2	97.89	0.000	7.092
Between Groups	786.657	57	13.801		
Total	982.437	59			

The above table shows the value of (F) calculated as (7.092) at a level of significance (0.000), which indicates that there are differences between the average of the three tests, and this means rejecting the null hypothesis developed by the two researchers and accepting the alternative hypothesis, which states that there are significant differences between the tests (efficiency of focusing attention). Students according to the second sitting position at the study tables. To find out the significance of the differences, the mean scores of the three tests, the researchers resorted to using the (L.S.D) test to extract the least significant differences, as shown in Table (6).

Table (6) Results of the Least Significant Differences (L.S.D) test for the three tests for players according to the second sitting position

Tests	Averages Differences	Sig.
First test - second test	0.042	2.78
First test - third test	0.076	1.95
The second test - the third test	0.238	-0.83

From the above table, it was found that the significant differences are in favor of the average scores of the first test at the expense of the second test, and there are no significant differences between the average scores of the second test at the expense of the third test. The researchers attribute these differences to the fact that the second sitting position, in which the sitting is at an angle of (40-50) degrees with the backrest of the chair and placing the hands intertwined in front of the chest on the table, is uncomfortable for the students, which causes them physical and sensory exhaustion, as the long and uncomfortable sitting prevents the study. Circulation of blood with a sense of drawing blood towards the leg. Likewise, pressure is generated on the vertebrae and a feeling of pain in the lower back is more than when sitting upright (Hamo Bou Zarifa, 1995). Which generates a feeling of discomfort, which is reflected in a cycle on the level of attention focus, and this is evident through analyzing the results of the tests. If the average score of the first test was found to be the highest among the three tests, which means that the level of attention was at its highest level at the beginning of the lesson, then the level decreased as the time increased. The lesson is a result of his feeling of discomfort from the sitting position he used to take during the lesson.

Testing the Third Hypothesis

The third hypothesis which states that there are no significant differences between the tests (efficiency of focusing attention) of students according to the third sitting position at the study tables (excursions). The researchers analyzed the results of the three tests that were applied to the players, as shown in Table (7).

Table (7) The arithmetic mean, standard deviation, and total responses of two players in the Attention Focusing Efficiency Test, according to the third sitting position

The Third Sitting Position	No. of Players	Mean	Std Dev.
The First Test	3.64	16.48	30
The Second Test	3.37	15.93	30
The Third Test	3.31	16.080	30

From the table above, the average of the students' responses according to the third sitting position is shown in the language of the first test (16.48) and with a standard deviation (3.64), and in the second test the arithmetic mean was (15.93) and with a standard deviation (3.37), while in the third test the arithmetic mean was (16.080) and with a standard deviation Normative (3.31) To ensure that there are differences between the average of the three tests according to the third sitting position, the researchers resorted to using the one-way analysis of variance test, as shown in Table (8).

Table (8) One-way analysis of variance for attention focus efficiency tests for players according to the third sitting position

Varia nce Source	sum of squar es	Freed om Degre e	mean of squar es	F Calcula ted Value	Sig.
Among Groups	3.762	2	1.881	0.754	0.200
Between Groups	533.43	57			
Total	537.192	59	9.358		

The above table shows the value of (F) calculated for the three tests amounted to (0.2) with a level of significance (0.754), which indicates that there are no differences between the average of the three tests, and this means acceptance of the null hypothesis developed by the two researchers, which states that there are no significant differences between the tests (efficiency of focusing attention). Students in the third sitting position at study tables (trips). . The researchers attribute this to the fact that the efficiency of focusing attention did not decrease during the study period according to the third sitting position, which is at right angles with the backrest of the chair and placing the elbows of the hands on the armrests of the chair, as well as adding a footrest with an inclined height at an angle of (10-15) degrees that can be changed. Sitting reduces pressure and tension on some muscles and tendons, and thus reduces physical exhaustion for the

student, allowing him to maintain his level of attention well.

CONCLUSIONS

Among the most important conclusions reached by the researchers:

1. The first sitting position, in which the sitting is upright with the backrest of the chair, greatly affects the level of (efficiency of focusing attention).
2. The third sitting position, in which sitting upright with the backrest of the chair and the presence of a footrest, greatly affects the level of (efficiency of focusing attention).
3. The first and third sitting positions are better than the second sitting position, in which the sitting is diagonal and at an angle of 40-50 degrees with the backrest of the chair in the test (efficiency of focusing attention).
4. The level of efficiency of focusing attention begins to decline after the first (10) minutes of the lesson if the sitting position is uncomfortable for the student.

RECOMMENDATIONS

1. Working on adjusting seats for people with special needs who are deaf and mute in line with the results of the study.
2. Conducting a scientific study on the effect of sitting positions on the sense of sight for short and focal length patients.
3. Conducting scientific studies related to some aspects of attention for people with special needs.

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