PSYCHOLOGY AND EDUCATION (2024) 61(1): 1125-1135
ISSN: 1553-6939

EVALUATING THE SYMPTOMS OF COMPUTER VISION SYNDROME (CVS)
A SAMPLE OF SECOND-YEAR PSYCHOLOGY STUDENTS, AT THE FACULTY OF HUMAN AND SOCIAL SCIENCES, UNIVERSITY OF MOULOUD MAMMERI, TIZI OUZOU

KADDOUR Atmane[1*]
[1]University of Mouloud Mammeri, Tizi Ouzou, Algeria
* kaddouratmane875@gmail.com

ABSTRACT

This study aimed to evaluate the symptoms of Computer Vision Syndrome (CVS) among a sample of second-year psychology students at the Faculty of Humanities and Social Sciences at Mouloud Mammeri University of Tizi Ouzou. The research sample included 30 students studying in the second year of psychology at the Faculty of Humanities and Social Sciences. , Mouloud Mammeri University of Tizi Ouzou, were chosen randomly without any considerations. To achieve the purposes of this study, the researcher relied primarily on the questionnaire tool (the questionnaire was downloaded from the website: https://concerto.cvss17.com/test/cvss17eng). The questionnaire consists of seventeen items that measure the most comprehensive computer vision syndrome, and the weights of the items were (according to a Likert scale). The descriptive approach was used. The statistical methods used to analyze the data: the Shapiro-Wilk Test distribution for data, and the reason for its selection is due to the size of the chosen sample (from 50 or less), unlike the Kolmogorov-Smirnov test, which is suitable for sample size (from 50 or more), and the Cronbach's alpha test to calculate reliability. test for reliability, Independent Sample T test to test the hypothesis of differences between means between two independent groups (males, females) in the symptoms of computer vision syndrome, arithmetic average, standard deviation, frequencies, percentages

The results of the study showed that there was a statistically significant effect between organizational work pressures and job performance. The results also showed that there was a statistically significant effect for: (quantitative and qualitative role burden, role ambiguity, job performance evaluation, and the physical work environment). The results also showed that there was no A statistically significant effect for: (role conflict, lack of participation in decision-making, and professional development).

The results of the study were indicated by reading and interpreting the answers (frequencies) of the research sample members regarding the questionnaire that measures the symptoms of computer vision syndrome. The results showed that most of the answers were negative. Their answers to most of the items fell within the "Never" option, which has the highest frequency. It indicates that they are not experiencing symptoms of computer vision syndrome; However, some items had answers to other options; This can be explained, in my personal opinion, by the haste in the students' answers to the questionnaire, and the randomness of the answers, from the results of the table above, and by looking at the results of Levene's homogeneity test, from which we find that the value of (F) is (0.140), which measures the extent of equality of variance between the two groups, and we note that the significance The statistic of 0.711 is greater than

0.05 (that is, the variance is equal, and therefore we accept the null hypothesis that the variance is equal), and accordingly we take the results of the equal variance hypothesis.

Accordingly, the value of (t) reached (0.026) with a significance level of (0.980) greater than (0.05) and it can be said that there are no statistically significant differences between males and females in terms of average exposure to symptoms of computer syndrome.

Therefore, we accept the null hypothesis that there are no statistically significant differences between the average of males and females with regard to exposure to symptoms of computer vision syndrome.

Keywords
Evaluating; symptoms; computer vision syndrome.

Introduction

Eye problems resulting from the use of computers fall under the title (computer vision syndrome), and in fact, it is not a specific problem, but rather consists of a wide spectrum of eye pain and fatigue. Research has shown that between 50 and 90 percent of those whose jobs require the use of computers suffer from at least one of these problems.

This syndrome is not limited to adults who constantly work on computers, but also extends to children who use computers in schools, especially in the absence of ideal lighting.

Computer vision syndrome occurs as a result of frequent use of computers for long periods, in a manner similar to what occurs in carpal tunnel syndrome. Repeating the same movements for a long period of time causes severe stress in these organs.

During working hours, the eyes need to focus on specific points on the screen repeatedly, such as eyeball movements back and forth while reading, shifting the gaze from the screen to a piece of paper, for example, and then back to the screen. All of these movements require great effort from the eye muscles, and what makes the condition worse is the presence of glare and sparkle of colors coming from the screen, unlike the case with books, for example.

These problems are more evident for those who already suffer from eye problems, such as myopia, and need to use glasses.

Using a computer becomes more difficult with age, as the eye lenses become less able to adapt to the light coming from screens. By the age of forty, the eye's ability to adapt to seeing near objects decreases, which ophthalmologists call presbyopia.

1. Definition of computer vision syndrome:

Eye problems resulting from the use of computers fall under the title (computer vision syndrome), and in fact, it is not a specific problem, but rather consists of a wide spectrum of eye pain and fatigue. Research has shown that between 50 and 90 percent of those whose jobs require the use of computers suffer from at least one of these problems.

This syndrome is not limited to adults who constantly work on computers, but also extends to children who use computers in schools, especially in the absence of ideal lighting.

Computer gaze syndrome occurs as a result of frequent and prolonged use of computers, in a manner similar to what occurs in carpal tunnel syndrome. Repeating the same movements for a long period of time causes severe stress in these organs.

During working hours, the eyes need to focus on specific points on the screen repeatedly, such as eyeball movements back and forth while reading, shifting the gaze from the screen to a piece of paper, for example, and then back to the screen. All of these movements require great effort from the eye muscles, and what

makes the condition worse is the presence of glare and sparkle of colors coming from the screen, unlike the case with books, for example.
These problems are more evident for those who already suffer from eye problems, such as myopia, and need to use glasses.

Using a computer becomes more difficult with age, as the eye lenses become less able to adapt to the light coming from screens. By the age of forty, the eye's ability to adapt to seeing near objects decreases, which ophthalmologists call presbyopia (Computer vision syndrome, n.d.).

100 million people in the United States use computers in their work every day (U.S. Bureau of Labor Statistics). Since 1999, according to the National Center for Educational Statistics, 95% of schools and 63% of departments have access to the Internet. On a typical day, every child 2-5 years old spends an average of 27 minutes in front of the computer. Computers have become the primary means through which we receive and receive information through our eyes and visual system (James E. & Peter G., 2003, p. 1)
There is a term related to computer vision syndrome, which is Video Display Terminals (VDTs), which is used in a group of professions such as: office work, printing, computer work, and air traffic control. Their use in offices is increasing rapidly, and the number of users of VDTs in the United States was estimated at approximately 7 million in 1980 (The National Academies, 1983, p. 5).

2. Symptoms of computer vision syndrome: The symptoms of this condition may vary from one patient to another, but in general, these are the most prominent:

- Eyestrain.
- Dry eyes.
- Redness and irritation of the eyes.
- Double vision.
- Headache, neck or back pain.
- Vision problems.
- Difficulty refocusing the gaze on something.
- General fatigue and dizziness.

Other symptoms, such as: itchy eyes, blurry vision, stiff neck or shoulder, and short-sightedness.

3. Diagnosis of computer vision syndrome: These are some procedures that may help the ophthalmologist diagnose the condition:

- Review the patient's medical history, and inquire about the nature of his lifestyle and the medications he takes.
- Conducting eye examinations aimed at examining things such as visual acuity and the ability of the eyes to focus. Among these examinations, the doctor may dilate the pupil to examine the back area of the eye.
- Sometimes blood tests are performed to try to monitor any other health problems that may have contributed to this syndrome.

4. Computer vision syndrome treatment:
Here is a list of available options:
1.4. Changes in the way computers are used: Often, making some changes in lifestyle and the way computers are used may be sufficient to treat this syndrome. Like the following:

- Take at least a 15-minute break after every two hours of continuous staring at the computer screen.
- Stare at anything outside the range of the computer screen for at least 20 seconds after every 20 minutes of continuous staring at the screen.
- Install a glare-proof cover on the smart device screen.

 Maintain a distance of 50-70 cm between the eyes and the computer screen.
 Trying to blink more frequently while using the computer.
 Changing computer settings, such as: enlarging the font, and adjusting the brightness and contrast of the screen.
 Other recommendations, such as: using a humidifier in the room, drinking plenty of water, and changing the lighting settings in the room.

Medical methods: If the person already has other health problems, these are some of the available treatment methods:
 Prescription glasses to correct vision problems. And conduct periodic examinations to change the measurements of medical glasses whenever necessary.
 Eye drops to keep the eyes moist.
 Medicines to stimulate tear production.
 Other methods, such as: performing special eye exercises, and undergoing laser vision correction (Reham, 2021).

5. Research problem:

The extensive use of artificial intelligence devices, computers, smart phones, and digital tablets in various work environments has caused several health problems for individuals, especially the eye/sight, because it is the first sense to receive information from digital screens. The latter should be well designed so as not to harm the user's eyes. Based on the above, and through the information derived from the field study that included a sample of second-year psychology students, at the Faculty of Humanities and Social Sciences at Mouloud Mammeri University of Tizi Ouzou, and in pursuit of the research goal of evaluating the symptoms of computer vision syndrome, the following two main questions can be asked:
 Are members of the study sample exposed to symptoms of computer vision syndrome?
 Are there statistically significant differences in the average of students' answers regarding the computer vision syndrome variable due to the gender variable?

6. Research hypotheses:

The first hypothesis: Members of the study sample are exposed to symptoms of computer vision syndrome
The second hypothesis: There are statistically significant differences in the average of students' answers regarding the computer vision syndrome variable due to the gender variable

7. Research objectives:

The research aims to evaluate the symptoms of computer vision syndrome among a sample of second-year psychology students at the Faculty of Humanities and Social Sciences at Mouloud Mammeri University of Tizi Ouzou. This research also aims to find out whether there are differences in the average of students' answers regarding the computer vision syndrome variable due to Gender variable.

8. Research sample:

The research sample included 30 students studying in the second year of psychology, at the Faculty of Humanities and Social Sciences, Mouloud Mammeri University of Tizi Ouzou, who were selected randomly without any considerations.

9. Data collection tools:

The researcher relied mainly on the questionnaire tool (the questionnaire was downloaded from the website: https://concerto.cvss17.com/test/cvss17eng). The questionnaire consists of seventeen items that

measure the most comprehensive computer vision syndrome. The weights of the items (according to the Likert scale) were as follows:

Table 1. Weights of items

Strongly agree	***Partially agree***	***Partially disagree***	***Strongly disagree***			
4	3	2	1			
Constantly	***Frequently***	***Partially Rarely***	***Never***			
4	3	2	1			
Often	***mostly***	***Several times***	***almost***	***never***		
5	4	3	2	1		
Very much	***much***	***moderate amount***	***little***	***very little***	***nothing***	
6	5	4	3	2	1	
Always	***Almost Always***	***Frequently***	***Sometimes***	***rarely***	***almost***	***never***
7	6	5	4	3	2	1

The average of each weight was calculated as follows: subtracting the largest value from the smallest value, then dividing the result by the number of weights (4 – 1 = 3) and then (4 ÷ 3 = 0.75). Therefore, the average weight of "Strongly Disagree" is equal to 1.75, meaning (1 + 0.75 = 1.75), because the scale starts from 1, meaning any value of the arithmetic mean of the item that falls within the range from (1 to 1.75) falls within the "Strongly Disagree" option; The average weight of "Partially Disagree" is equal to 2.50, meaning (1.75 + 0.75 = 2.50). This means that any value of the arithmetic mean of the item that falls within the range from (1.75 to 2.50) falls under the "Partially Disagree" option; The average weight of "partially agree" is equal to 3.25, meaning (2.50 + 0.75 = 3.25). This means that any value of the arithmetic mean of the item that falls within the range from (2.50 to 3.25) falls within the "partially agree" option, and the average weight of "strongly agree" is equal to 4. It means (3.25 + 0.75 = 4), which means that any value of the arithmetic mean of the item that falls within the range from (3.25 to 4) falls under the "strongly agree" option.

By following the same method, we obtain the average weights of the items that have five-, six-, and seven-point options.

10. Stability of the study tool:

The research tool (questionnaire) was verified by calculating Cronbach's alpha, and the results were as shown in the following table:

Table 2. Reliability of the questionnaire

Alpha de Cronbach	number of items
,849	17

From Table 2, we notice that the value of the reliability coefficient reached (0.849), which indicates that the questionnaire is stable, because the more the value of the Cronbach's alpha reliability coefficient is greater than 0.70 and close to the correct one, the more stable the questionnaire is.

11. Statistical methods used to analyze data:

11.1. The Shapiro-Wilk Test distribution test for normal data distribution. The reason for its selection is due to the size of the chosen sample (from 50 or less), unlike the Kolmogorov-Smirnov test, which is suitable for the sample size (from 50 or more)

11.2. Cronbach's alpha test for reliability
11.3. Independent Sample T test to test the hypothesis of differences between means between two independent groups (males, females) in the symptoms of computer vision syndrome
11.4. arithmetic average standard deviation frequency percentages.

12. Descriptive statistics for research variables:

Table 2. Reliability of the questionnaire

Frequencies, percentages, arithmetic mean, and standard deviation for the characteristics of the research sample individuals: gender and age

tandard deviation	arithmetic mean	percentages	frequency	Study variables	
0,25	1,96	6,7	2	Male	**Gender**
		93,3	28	Females	
0,85	1,60	56,7	17	years 20 – 18	**Age**
		33,3	10	years 22 – 21	
		3,3	1	years 25 – 23	
		6,7	2	أكثر من 25 years	
		% 100	30		

From the table above it is clear that the number of females is greater than the number of males, as their number reached 28, or 93.9%, while the number of males was 2, or 6.7%. The arithmetic mean for the gender variable was 1.96 and a standard deviation of 0.25.

The table also indicated that the age group from (18 to 20 years) received the greatest frequency, followed by the group from (21 to 22 years), followed by the group from (more than 25 years), and in good measure, the group from (23 to 25 years).

The arithmetic mean of the age variable was 1.60 and a standard deviation of 0.85.

12.1. Frequencies, percentages, arithmetic means, and standard deviations of the responses of the research sample members to the questionnaire items:

 Item number one, “Have the letters on the screen become blurry?” came with a mean of (1.80) and a standard deviation of (1.27), and the highest frequency for the “Never” option was 19, with a percentage of 63.3, which indicates that most of the sample members included Research: The letters on the screen did not become blurry due to working on the computer, which indicates that their eyes were not tired.

 Item number two came: “Are your eyes tired?” With an arithmetic mean of (3.10) and a standard deviation of (1.51), the highest frequency for the option “sometimes” was 12 and a percentage of 40.0, which indicates that most of the sample members included in the research sometimes feel fatigue at the level of the eyes as a result of working on the computer.

 Item number three: “Do your eyes hurt?” With an arithmetic mean of (2.20) and a standard deviation of (0.80), the highest frequency for the “rarely” option was 19 and a percentage of 13.3, which indicates that most of the sample members included in the research rarely get pain in their eyes as a result of working on the computer.

 Item number four was: “Did you have to blink more than usual?” With a mean of (1.93) and a standard deviation of (0.90), the highest frequency for the “rarely” option was 12 and a percentage of 40.0, which indicates that most of the sample members included in the research rarely or rarely blink their eyes more than usual as a result of working on the computer.

 Item number five came: “Did your eyes become irritated?” With an arithmetic mean of (1.60) and a standard deviation of (0.81), the highest frequency for the “Never” option was 17 and a percentage of 56.7, which indicates that most of the sample members included in the study do not suffer from irritation or inflammation at the level of the eyes.

 Item number six: “Did you have to do your best to see well?” With an arithmetic mean of (2.03) and a standard deviation of (1.65), the highest frequency for the “Never” option was 19 and a percentage of 63.3, which indicates that most of the sample members included in the research do not make an additional effort to see the information appearing on the screen.

 Item number seven: “Did you feel as if your eyes were rotating?” With an arithmetic mean of (1.53) and a standard deviation of (0.62), the highest frequency for the “Never” option was 16 and a percentage of 53.3, which indicates that most of the sample members included in the research do not feel anything like eye rolling while working on the computer.

 Item number eight: “Did the letters appear double?” With an arithmetic mean of (1.73) and a standard deviation of (1.25), the highest frequency for the “Never” option was 20 and a percentage of 66.7, which indicates that most of the sample members included in the research do not suffer from a vision disorder and the letters appear to them normally and they do not see them as double. While they work on the computer.

Item number eight: “Did the letters appear double?” With an arithmetic mean of (1.73) and a standard deviation of (1.25), the highest frequency for the “Never” option was 20 and a percentage of 66.7, which indicates that most of the sample members included in the research do not suffer from a vision disorder and the letters appear to them normally and they do not see them as double. While they work on the computer.

 Item number nine: “Did you feel a tingling sensation in your eyes?” With an arithmetic mean of (1.50) and a standard deviation of (0.73), the highest frequency for the “Never” option was 19 and a percentage of 63.3, which indicates that most of the sample members included in the research do not feel a tingling sensation in their eyes as a result of working on the computer.

 Item No. 10 stated: “Have your eyes become heavy?” With an arithmetic mean of (1.66) and a standard deviation of (0.88), the highest frequency for the “Never” option was 16 and a percentage of 53.3, which indicates that most of the sample members included in the research did not have heavy eyes as a result of their work on the computer.

 Item No. 11: “Do the lights bother you?” With a mean of (3.20) and a standard deviation of (1.09), the highest frequency for the option “often” was 13 and a percentage of 43.3, which indicates that most of the sample members included in the research suffer from the problem of lights emanating from information display screens.

 Item No. 12: “Teary Eyes” came with a mean of (2.50) and a standard deviation of (1.45). The highest frequency of two equal options, “None” and “Very Little,” was 9 and a percentage of 30.0, which indicates that the majority of individuals The sample included in the study does not suffer from symptoms of tears coming from the eyes as a result of working on digital screens that display information about the system’s operation.

 Item No. 13: “Redness of the eye” came with a mean of (2.06) and a standard deviation of (1.59), and the highest frequency for the option “None” was 17 and a percentage of 56.7, which indicates that most of the

sample members included in the research do not suffer from Displaying eye redness from their work Digital screens that display information about the operation of the system.

 Item No. 14: "At the end of my work, my eyes feel heavy" with a mean of (2.30) and a standard deviation of (1.02). The highest frequency for the option "Partially agree" was 15, with a percentage of 50.0, which indicates that the majority of the sample members were Participants in the study felt heaviness at the visual level at the end of their work on digital screens.

 Item No. 15: "After working on the computer, I must do my best to see well" came with a mean of (2.06) and a standard deviation of (0.98), and the highest frequency was for the options "strongly agree" and "partially agree." With 12 and a percentage of 40.0, which indicates that most of the sample members included in the research are making great efforts and concentration to regain the normal vision that they enjoyed before working on digital screens.

 Item No. 16: "I must close my eyes tightly to reduce their dryness when using these devices" came with a mean of (2.23) and a standard deviation of (1.07). The highest frequency for the option "Partially agree" was 12 and a percentage of 40.0, which indicates Most of the sample members included in the research close their eyes from time to time to ensure a good view of the information displayed by the digital screens on which they work.

 Item No. 17: "After some time at the computer, the lights bother me" with a mean of (2.58) and a standard deviation of (1.08). The highest frequency for the option "Partially agree" was 12, with a percentage of 40.0, which indicates that most of the individuals The sample included in the research feels, over time, as they complete their tasks via the computer, that the light coming from the screen bothers them and affects the health of their vision.

13. Inferential statistics:

13.1. Hypothesis testing:

13.1.1. Testing the normal distribution of data. Shapiro-Wilk Test distribution

Before testing the research hypotheses using appropriate statistical methods, from a methodological and statistical standpoint, it is necessary to ensure the normal distribution of the data, and accordingly the (Shapiro-Wilk) test was adopted, the conditions of which include a small sample size (less than or equal to 50 individuals).

Null hypothesis: The data follows a normal distribution (if the p or sig value is smaller than 0.05 we reject the null hypothesis)

Alternative hypothesis: The data does not follow a normal distribution (if the p or sig value is greater than 0.05 we accept the null hypothesis). The following table shows the results:

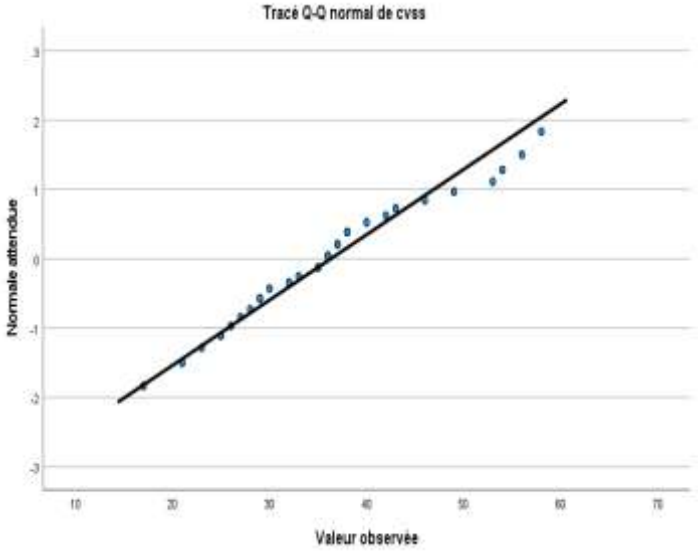
Table 3. Shapiro-Wilk test for normal distribution of data

	normal distribution test		
	Shapiro-Wilk		
Symptoms of computer vision syndrome	Statistics	Degree of freedom	Sig.
	,967	29	,474

Through Table 6, which shows the Shapiro-Wilk test to confirm whether the data is subject to a normal distribution or not, and given the value of statistical significance sig, which is estimated at: 0.474, which is

greater than 0.05, which requires accepting the null hypothesis, which states that the data follows a normal distribution, which allows We use parametric tests to analyze data, such as the independent samples t-test, which falls within this list.
The following chart shows this:

Figure 1. A graph showing the normal distribution of data



13.1.2 Testing the first hypothesis that:
"Members of the study sample are exposed to a high level of symptoms of computer vision syndrome."
This hypothesis was tested by reading and interpreting the answers (frequencies) of the research sample members regarding the questionnaire that measures the symptoms of computer vision syndrome. The results showed that most of the answers were negative. Their answers to most of the items fell within the "Never" option, which has the highest frequency. Which indicates that they are not exposed to symptoms of computer vision syndrome; However, some items had answers to other options; In my personal opinion, this can be explained by the haste in students' answers to the questionnaire, and the randomness of the answers.
13.1.3. Testing the second hypothesis that:
"There are statistically significant differences in the average of students' answers regarding the computer vision syndrome variable due to the gender variable."
This hypothesis was tested with an independent samples t-test
Table 4. Results of the independent samples t-test regarding the second hypothesis
Group statistics

	gender	N	Moyenne	Ecart type	Moyenne d'erreur standard
cvss	male	2	36,5000	9,19239	6,50000
	female	27	36,2963	10,86920	2,09178

It is clear from the data in Table 4 that the average symptoms of computer vision syndrome for men is (36.5000) with a standard deviation of (9.19239), which is higher than the average symptoms of computer

vision syndrome for females which is (36.2963) with a standard deviation of (10.86920); To find out whether this difference is statistically significant or not, we read the results of the following t-test:

Table 5. Results of the independent samples t-test regarding the second hypothesis

Test des échantillons indépendants

		Levene's test for equality of variance		T-test for equality of means				
		F	Sig.	t	df	Sig. (bilateral)	means difference	Std. standard
cvss	Hypothèse de variances égales	,140	,711	,026	27	,980	,20370	7,92315
	Hypothèse de variances inégales			,030	1,217	,980	,20370	6,82829

From the results of the table above, and looking at the results of Levene's test for homogeneity, we find that the value of (F) is (0.140), which measures the extent of equality of variance between the two groups, and we note that the statistical significance of 0.711 is greater than 0.05 (that is, the variance is equal, and therefore we accept the null hypothesis that says That the variance is equal), and therefore we take the results of the equal variance hypothesis.

Accordingly, the value of (t) reached (0.026) with a significance level of (0.980) greater than (0.05) and it can be said that there are no statistically significant differences between males and females in terms of average exposure to symptoms of computer syndrome.

Therefore, we accept the null hypothesis that there are no statistically significant differences between the average of males and females with regard to exposure to symptoms of computer vision syndrome.

14. Discussion of the results:

Through studying and analyzing the topic "Assessing the symptoms of computer vision syndrome among a sample of second-year psychology students, at the Faculty of Humanities and Social Sciences at Mouloud Mammeri University of Tizi Ouzou," the results reached can be summarized as follows:

 The results of descriptive statistics showed that most of the answers of the research sample members were negative. Their answers to most of the items fell within the "Never" option, which has the highest frequency, which indicates that they are not exposed to the symptoms of computer vision syndrome.

The results also indicated that there are no statistically significant differences between the average of males and females with regard to exposure to symptoms of computer vision syndrome.

Conclusion:

Finally, through what we discussed about computer vision syndrome, it becomes clear that it needs more field studies in order to diagnose its most important symptoms and treat them before it affects the health of the individual in the most precious sense he possesses, which is the eye. In addition to suggesting participation between engineers who make digital screens to display information, ergonomists who design suitable work environments, and ophthalmologists; Because attention today is focused on humans before machines.

References

[1] James E., S., & Peter G., S.-M. (2003). Diagnosing and Treating Computer-Related Vision Problems. (E. Science, Ed.) Burlington, United State of America: Butterworth Heinemann.

[2] The National Academies. (1983). video displays, work, and vision. National Research Council. Retrieved from http://www.nap.edu/catalog/169.html

[3] Arwa. (January 30, 2021). Distance education studies, important Arab studies on distance education from 2012 to 2016. Retrieved June 21, 2023, from ab7as.net: https://ab7as.net/distance-education-studies-from-2012-to-2016 /

[4] Abbas Reham. (July 28, 2021). Computer vision syndrome: important information. Retrieved date: November 25, 2023, from webteb Information I trust: https://www.webteb.com/articles/30867Computer Vision Syndrome

[5] Computer vision syndrome. (no date). Retrieved May 5, 2023, from https://altibbi.com: https://altibbi.com/medical terms/eye diseases/computer vision syndromeBlunkett, D. (1998, July 24). Cash for competence. Times Educational Supplement, p. 15.