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GENDER PHYSIOLOGICAL FEATURES OF STUDENTS DURING THE PROCESS OF EDUCATION

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Abstract

This article looks through gender discrepancies in cognitive processes mainly attention, among first-year students. According to an experimental study using the "Landolt Rings" methodology, the indicators of concentration, distribution, and volume of attention were analyzed for both male and female students. The research findings show that in spite of some minor variations in average scores, the level of attention development in both groups is high. The article emphasizes the significance of considering gender-specific characteristics when structuring the educational process to achieve maximum learning efficiency.

Attention is considered one of the fundamental cognitive processes which plays a key role in education. Productivity of owning knowledge and skills directly depend on its concentration stability and volume. In our modern teaching psychology a lot of attention is now being paid to gender uniqueness in a cognitive sphere as understanding those differences lets us optimize a teaching method and create a more effective educational sphere. The aim of this work is – to analyze gender differences in gender-specific characteristics of attention

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(concentration distribution and volume) of the first-year students based on data collected with the methodology of «Landolt Rings».

The overview of the literature.

The research in the field of gender differences has a deep meaning. Many scientists note that though there are some similarities between intellectual abilities of both boys and girls there might be some distinctions in cognitive strategies and strengths of their education. For example some investigations show that while girls outperform boys in terms of verbal skills boys are better in terms of mathematical and spatial problems. However details about gender differences remain ambiguous.

The research shows that girls are more resilient in terms of attention whereas that in boys can be moved. However those conclusions are usually based on observations of the behavior in situations which can be served not only in cognitive factors but also in social ones as well. Other investigations point out at the absence of important gender differences in the concentration of attention in the implementation of the routine and monotonous tasks. The methodology Landolt rings is widely used in psychology teaching for attention diagnosis. It is necessary to pay attention to its properties. It makes it possible to quantitively asses such parameters such as concentration stability and productivity.

Methodology

The research using the methodology Landolt rings was based on measuring concentration distribution and volume of attention. As challengers first-year students were taken divided into two different groups.

1.Concentartion

Challengers had to find and cross out the wheel breakage in a particular place. The tester pronounced the word line and the students had to take notes. After 5 minutes both groups had to stop and challengers put double vertical lines.

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2.Processing information

- The number of observed wheels were counted every minute and throughout a five-minute period.
- The number of mistakes was identified.
-Indices of accuracy was calculated (S):S=NtotalNcorrect 100% where Ncorrect- the number of correctly crossed out wheels Ntotal- the total number of rings which had to be crossed out.
-According to the results the graphics about the productivity of work was formed.

3.The distribution of attention

The instruction was analogical but the challengers were asked to find and cross out two types of rings with explosion in various places using different ways of crossing out every single type. This way assesses the ability of multitasking.

4.The volume of attention

The volume was assessed in a 10-point scale which was based on the amount of simultaneously acquired information. The medium volume of attention of an adult makes up 3-7 units. For the first-year students the top norm limit is identical to the age however it does not outperform the volume of the adults attention. The scale of assessment:

- 10 points-6 units and higher
-8-9 points- 4-5 units
-4-7 points-2-3 units
-0-3 points- lower than 2 units.

Results of the test which we got using the Landolt rings methodology for the students of the Group 108 A and B subgroups are shown below.

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First-year students of the Group 108(Subgroups A and B)

№	S/N of the students	The level of concentration improvement (C)	Speed score(Q)
		Value of C, %	Level
Girls			
1	Abdukarimova Nodira	93,55%	Very good
2	Abdullayeva Maknuna	89,25%	Very good
3	Abdullajanova Robiya	91,4%	Very good
4	Abdupattayeva Muslima	89,25%	Very good
5	Akbaraliyev X.	84,95%	Very good
6	Aliyeva Omina	94,62%	Very good
7	Qodirova Gulirayxon	86,02%	Very good
8	Muhammadjanova D	93,10%	Very good
9	Nosirova Mokhlaroy	89,25%	Very good
10	Tokhirova Turginiso	90,32%	Very good
11	Tursunova Zeboxon	93,55%	Very good
12	Shakirjanova Marziya	81,72%	Very good
13	Yuldasheva Feruza	87,1%	Very good
Итого:	Total score (C) %:	1164,08%	Very good
	Average (C):	89,54% (very good)	Very good

№	S/N of the students	The level of concentration improvement (C)	Speed score(Q)
		Value of C, %	Level
Boys			
1	Azimjanov A.	82,8%	Very good
2	Akramov Abror	94,62%	Very good
3	Alimov Abrorbek	95,7%	Very good
4	Axmedov M.	92,47%	Very good
5	Gulomjonov Azizbek	94,62%	Very good
6	Inomov Shokhjaxon	94,62%	Very good
7	Nigmatshayev Erkin	82,8%	Very good
8	Chudinov Miron	93,55%	Very good
9	Shukhratov M	93,55%	Very good
In total	Total score (C) %:	824,73%	
	Average(K):	91,6% (Very good)	

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Discussion

Analysis shows that boys showed a little higher percentage (91,6%) than girls (89,54%). However this distinction is not statistically essential and both groups demonstrate a great level of concentration. This goes along with the conclusions which did not prove important gender differences in productivity of doing routine and monotonous tasks. Methodology " Landolt rings" is widely used in psychology and teaching for a diagnosis of attention and its features. It lets numerically estimate concentration stability and productivity.

Normal speed of the performance is also practically identical: 1,26 in girls and 1,25 in boys. A normal mark of both groups is 8, which matches the category " fully ready for the beginning of the education at school" for students of 3-4 classes.

However, as a study group- first-year students, then we should match their indicators with the normal attention span of an adult. 8 points is within the normal range of an adult, which illustrates a sufficient level of attention improvement in both groups.

The results obtained in terms of distributing attention(although numerical indicators are not shown), also show that students can deal with multitasking, which is an important aspect in educational sphere. The ability to shift attention and stability are also in a high level, which is about the indicator of "very good" in terms of the level of the concentration of attention.

Conclusion

Based on the research we can conclude that

1.Gender differences in indicators of concentration speed and volume of attention are not substantial. Both groups – boys as well as girls demonstrate high results which can be compared.

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2.Results which we got from the methodology of Landolt rings show an improved level of the first-year students attention which is an amazing factor of their forward education.

3. Differences between individual indicators in every group (for example between Abdukarimova Nodira and Shakirjanova Marziya or between Alimov Abrorbek and Azimjanov A) were more pronounced, rather than the average differences between males and females. This emphasizes on the fact that individual features play an important role, rather than gender distinctions.

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