An Adequate Perception on Attention Towards Stability and Obstacles of Space and Time, as an Assimilate Record of an Academic Chess

R. Mirzakhanyan, S. Gevorgyan, A. Khachatryan

Abstract
The current paper presents the objective test results of chess research carried out by the laboratory analysis of the Republic of Armenia. In order to identify the effectiveness of teaching academic chess, the research was carried out among the Armenian primary schools in 2-4 grades of high, medium, and low academic performance, concentration, and barriers to students’ attention towards stability, response rates, as well as the moving objects. The focus of barriers to sustainability is put on appraisal methods of analysis, it is clear that the barriers to sustainability assessment criteria are low, among the 4th grade students medium and high academic performance, there was an apparent increase in the number of true confrontation. Therefore, the stability of the learners’ attention was increasing. The “counter the moving object” methodology results suggest that Reaction to Moving Object coefficient, which is equal to the number of delays and early confrontation quotient, is gradually decreasing, adding the exact number of confrontation. The aim of teaching academic chess at schools is to develop teaching and students’ cognitive sphere, in particular, logical thinking, imagination, analyzing capacity, thus contributing to the academic study of other subjects.

Keywords
Cognitive skills, chess academic subject, attention concentration and stability, the attention and obstacles towards sustainability

Since 2011, in the Republic of Armenia, an academic chess subject is included in the general education curriculum. It has been taught in schools and the state standard of 2-4 grades. The aim is to develop teaching and students’ cognitive sphere, in particular, logical thinking, imagination, analytical capacity, thus contributing to the learning of other subjects in the study.

In March 2014, the president of the Chess Academy of the Republic of Armenia, Smbat Lpoutyan founded “Chess research laboratory”. The same laboratory was founded at the Armenian State Pedagogical University named after Khachatour Abovyan, all the lecturers were chosen from the faculty of Education Psychology and Sociology.

“Chess research laboratory” has begun its activity with the support of “Egoskop” complex.

A world of chess in experimental studies shows the effectiveness of the processes of appropriation of its intellectual potential impact on all subjects taught at primary schools. Experimental studies carried out in

---

Correspondent Author:
S. Gevorgyan, Tigran Mets ave. 17, Yerevan, Armenia

---

Armenian State Pedagogical University named after Khachatour Abovyan, Yervan, Armenia
the Republic of Armenia approved the “Chess” exceptional importance of students’ learning the subject willpower, hard work, commitment, patience, and was hard to navigate in unfamiliar situations, self-organization and self-activity skills formation, as well as in the area of children’s chess talent.

Elementary school subject “Chess” standard (Grades 2-4) clearly differentiated from the attention of the learners. The analysis of the educational problems of elementary school pupils shows that among their essential role in the problem of instability of attention, they naturally have a negative impact on educational activities, both on the academic performance of students.

Based on the foregoing analysis, the authors tried to study in detail the 2-4 graders’ focus features displays of key components, highlighted the role of attention in the learning process. As a typical example, the authors consider chess learning process, given that this or that quality of attention is manifested in the process of teaching all academic subjects. It is known that adequate research on perceptions of space and time will continue to maintain their relevance in relation to the first comprehensive study of the problem of elementary school pupils with mental processes. Therefore, the research task to run experimental tests proves adequate perception of space and time in the process of mastering.

“Egoskop” complex was selected and applied to focus and sustainability assessment method to interference. The study was conducted by an equivalent range of three research groups: students in grades 2-4 study high, medium, and low academic performance among a total number of 85 students.

The study had various obstacles in the visual and auditory signals, sound, and color, which will make the task prevent the pupil from studying. The performance of the tasks was allocated to each student with 11 minutes and 30 seconds. In accordance with the requirements of the methodology, it should take into account both the students’ age and the individual features. The study was conducted in two phases. The first phase was tested consecutively without sound and color barriers at 70 impulse response for the second 70 signal, sound, and color barriers. Criteria for consideration during analysis of research results were compared and evaluated according to students’ academic performance. To this end, two main criteria were separated: (1) evaluation of attention; and (2) assessment of stability and sound signals to interference color response. Two criteria are evaluated in turn by the following three components: (1) late; (2) rapid; and (3) the exact number of countermeasures. It is clear that the priority is given to the accurate assessment of the number of countermeasures as quickly as both belated reactions hampering the focus and stability, and the development of certain pieces of information per unit of time because of the execution of learners’ task. The analysis of the experimental results of the study revealed that the 2-4 grades of high-, medium-, and low-performing students recorded the following manifestations.

THE ATTENTION OF THE EVALUATION CRITERIA

(1) Quick countermeasures number of students in higher performance compared to the 3rd grade II-2 increased by half (50%), delayed reactions were reduced by 47%, and precise reactions taking place in a threefold increased (63%).

(2) Current academic performance of students in grades 2, 3 quick reactions doubled (50%), delayed reactions decreased to 18%. The exact triggers increased by 12%.

(3) Low academic performance of students in grade 3 quick reactions were altered, delayed reactions were reduced by 16%, and accurate reactions increased by 40%.

(4) High performance rapid countermeasures number of students in the 4th grade decreased by 50%, delayed reactions decreased by 24%, and precise
reactions occurred a decrease of 24.6%.

(5) Current academic performance of students in the 4th grade double quick reactions decreased, delayed reactions increased by 24%, while the exact triggers had a growth of 20%.

(6) Underachievers quick reactions of students in the 4th grade grew by 46%, delayed reactions decreased by 46%, and accurate reactions increased by 40%.

THE BARRIERS TO THE SUSTAINABILITY CRITERION

(1) High performance rapid countermeasures number of students increased by 25% in the 3rd class, late reactions were reduced by 33%, and accurate reactions decreased by 8%.

(2) Average grade 3 learners progress faster reactions decreased to 42%, late reactions increased by 9%, and the exact reactions increased by 7%.

(3) Low academic performance of students quick reactions, 3rd grade, decreased by 10%, delayed reactions decreased by 8%, and precise reactions occurred in 36% growth.

(4) High performance rapid countermeasures number of students in the 4th grade increased by 20% delayed reactions increased by 3%, and the precision reactions decreased by 8%.

(5) Current progress in 4th grade, quick reactions were reduced by 29%, delayed reactions decreased to 19%, and accurate reactions increased by 45%.

(6) Low academic performance of students quick reactions in 4th grade, respectively, increased by 10%, delayed reactions decreased by 22%, and the precision reactions occurred in 44% growth.

“Egoskop” complex was also elected to “counteract the moving object” technique, which provides a measure of equivalent perceptions of space and time, based on the fact that if the functional level of the organism is high, then the moving object’s reactions should dominate accurate responses.

The method of execution is granted for 2-3 minutes on each learner’s performance of tasks directive. In accordance with the requirements of the methodology, it should take into account the student’s age and individual characteristics.

Following is a “moving object reaction” techniques picture (see Figure 1).

The following diagrams (see Figures 2, 3, and 4) are presented in the form of averaged data for the exact countermeasures, delays, and early countermeasures number of experimental results of the research groups.

Experimental findings have been elaborated, it became clear that the 2-4 grades high-, medium-, and low-performing students’ Reaction to Moving Object coefficient, was equal to the number of delays and early confrontation quotient, gradually decreased, adding the exact number of countermeasures. In addition, the duration of response compared to chess subject of the students’ achievement, which came to the conclusion that there is adequate space and time between perceptions and levels of mastering the subject of chess which established that the object of educational chess mastered quoted 2-4 grades learners’ attention and concentration at relatively stable level rises. It is believed that the increase of chess helps students focus on the academic study of the subject of sustainability (see Table 1). This is evidenced by the fact that the tasks they are trying to increase the number of countermeasures, accurately, fastly counter their current obstacles and, therefore, increase the concentration of attention. Thus, students focus on a long-term stablity and retain their attention to find a way to solve the problem, which contributes to the development of other mental processes and improvement of academic performance. Teaching junior schoolchildren provides a positive emotional attitude, organization of diversity-oriented training materials, and attention to developing the following games, such as, running a careful view, picturing the missing piece, and depicting the empty box (see Table 2).
Figure 1. The Moving Object Counter Image.

Table 1. Results of the Moving Object in the Average Value of the Response Methods

<table>
<thead>
<tr>
<th>Results of average value for the moving object response methodology</th>
<th>2nd grade</th>
<th>3rd grade</th>
<th>4th grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moving object called response dimension: High</td>
<td>3</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Average</td>
<td>3</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Low</td>
<td>2</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>The exact number of countermeasures</td>
<td>3</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>The number of delays</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Shut number of countermeasures</td>
<td>7</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>The gap number</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>HSHO ratio = 2/3</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Figure 2. The Reaction to Moving Object, Grade 2.
Figure 3. Retaliated Moving Object, Grade 3.

Figure 4. Resisted Moving Object, Grade 4.

Table 2. The Missing Piece

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
</tr>
<tr>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
</tr>
<tr>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
</tr>
<tr>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
</tr>
<tr>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
</tr>
<tr>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
<td>♗</td>
</tr>
</tbody>
</table>
It is proposed that our chess pieces gradually complicate three rows of the spreadsheet. It turned out that, according to the average number of tasks, execution time varies from 20 to 40 seconds. The same goes for junior school students recommended by 20-60 seconds to closely watch the chess pieces table (by line), then the same sequence they depict empty cages is placed on the right side.

Developmental tasks were presented, which were selected to take into account the principle of gradual complication of children age characteristics.

“Seek continually”. Looking around 10-15 seconds to look closely and find the same color (size, shape) as much as possible subjects.

“Every job has its hands”. Left hand is slowly over one minute to browse the picture book, recalling the pictures, and hand drawn geometric shapes.

“Obstacles Computing”. Count aloud from 1 to 20 and at the same time to write the numbers 1 to 20.

“The focus of the distribution exercise”. Running scoresheet (Mr. Burdo, R. Test) said: “Horse” piece together all the images, reading the rules of chess. After graduation, the student is asked what he remembered about reading the rules.

Two kings cannot be found in the nearby fields. At least one field should be the distance between the two kings.

King cannot take, in other words, the king will never leave the board and remain until the end.

The king cannot be left in check, therefore, if the king is in check, you will have to save him from this situation.

The king cannot move after moving the fields and the risk cannot be shot at.

References


——. 2000. Dynamics of Mental Development of the Student in Connection With Training.


Bios

R. Mirzakhanyan, Ph.D. in historical sciences, professor of the Chair of Armenian History, chancellor of Khachatur Abovian Armenian State Pedagogical University Chair of Academic Council, Armenian State Pedagogical University named after Khachatur Abovyan, Yervan, Armenia; research fields: modern period of the history of Armenia, history of Armenian culture, history of Armenian visual arts.

S. Gevorgyan, Ph.D. in psychology, professor, Armenian State Pedagogical University named after Khachatur Abovyan, Yervan, Armenia; research fields: social psychology, communication psychology, age and pedagogical psychology.

A. Khachatryan, Ph.D., chair of Psychology, docent of Psychology Armenian State Pedagogical University named after Khachatur Abovyan, Yervan, Armenia; research fields: junior school children psychology, developmental psychology, special psychology and others.