

ISSN: 2392-5442 ESSN : 2602-540X		<i>Sport system journal</i>
V/09 N/01 Year/2022		<i>International scientific journal published by: Ziane Achour – Djelfa- Algeria</i>
P 190 - 202		<i>Received: 29/10/2021 A ccepted: 11/12/2021</i>

## **The Effect of the Sensory-Motor Programme on Some Perceptual Motor Abilities Capacities among the Children Autism**

**Adda Ben Ali<sup>1\*</sup>, Chalal Ismail Mutapha<sup>2</sup>, Chennouf Khaled<sup>3</sup>**

<sup>1</sup>Institut Sciences And Techniques Of Physical And Sport Activities, University Of Mohamed Kheider– Biskra ,Algeria. benali.adda@univ-biskra.dz

<sup>2</sup>University Of Wancharissi Tesmsilt, Ageria. chamustdz@gmail.com

<sup>3</sup>Institut Sciences And Techniques Of Physical And Sport Activities, University Of Mohamed Bodiaf – Oran , Algeria. khalchenouf@gmail.com

### **Abstract**

The research aims to suggest a the Sensory-Motor Programme on Some Perceptual Motor Abilities Capacities Among The Children autism. The searcher supposed that the suggested programme influences positively the cognitive and motor capacities of this category of children. -The searcher used the experimental method it. This is why The pre-testing and the post -testing methods were applied on a sample of 10 Children of moderate autism, aged between 6 and 9, divided into two groups discipliner 5 children and experimental 5 children .He used Bordo tests to measure the cognitive and motor capacities. -The most important conclusion we arrived at is : the Sensory-Motor Programme has positively influenced the improvement of the Perceptual Motor Abilities capacities among The Children of moderate autism.

**Key Words:** the Sensory-Motor Programme, Perceptual Motor Abilities Capacities, The Children autism

*\*Corresponding author*

# The Effect of the Sensory-Motor Programme on Some Perceptual Motor Abilities Capacities among the Children

## 1. INTRODUCTION

Caring for children in any society is an interest in the future of this society as a whole and measures the progress and progress of societies by their interest in, care for, and problem-solving. Today's children are the men of the future Community because their care is their duty, so their energy and potential must be invested to the maximum extent possible so that they can accept and co-operate with their disabled and be able to rely on themselves to meet some of their requirements so that they are not a burden on society, but a burden to contribute to its progress. The disorder of autism is one of the most difficult and complicated evolutionary disorders, because it affects different aspects of growth. This disorder has caused a lot of controversy as researchers have not yet agreed on a single explanation of this disorder, as it is considered a disease in the common sense, as it is diagnosed by accurately observing the behavior of the individuals infected with it, as it is a group of types of behavior that emanate from the child and that is centered on three behavioral disorders, which are General disturbances in social interaction, imagined activity disorders, communication capability, and persistent low attention to external events (Omar, Hassan, 2009, p. 20) Kinesthetic activity is a psychotherapy technique based on the use of play as a vent for internal emotions and conflicts and the development of motor skills. It is one of the most important ways and means of raising the body, training kinesthetic awareness through sensory training, and playing is a way to reduce stereotypical behavior by teaching a monoculous child How to play games in a way that modifies behavior by moving away from typical behaviors (shown, 2009, page 233)

The concept of giving children kinetic skills or developing kinetic patterns goes far, since the cognitive development of kinesthetic activity is rich in different cognitive and cognitive experiences, through the movement the child develops his observations, concepts and creative abilities, and is aware of dimensions and trends such as a sense of balance, location and time, and gains knowledge of all levels and is used to make sense of logical behavior, problem solving, and issuing evaluation judgments.,(NQPOLI.1980P82)

The most important obstacle is the monoclastic disorders of a single child, which are reflected by the performance of repetitive and repetitive movements with a fixed system that does not change and whose basic movements are randomly

irregular, pointing out (Uthman, 1987) these basic movements are only dynamic patterns that change from random movements to guided movements, and many recent studies have shown problems in the kindergarten, which are problems of general balance, and are purging in the form of problems of walking, stoning, throwing, jumping, and walking, and balancing, such as easily colliding with objects, stumbling during walking, and difficulty In practice that requires muscle use, Hussein Amir Sabri's study (2012) suggested the impact of motor exercises on reducing the random kinesthetic behavior of autism children (6-12 years) the study aimed to identify the impact of kinesthetic exercises on the reduction of the random kinesthetic behavior of autism children Kinetic movement has a positive effect on reducing the frequency of some random behavior of autism children, and as such, a study concluded by Mahmoud al-Khattab (2004), which aims to identify the effectiveness of a game-related program to reduce some behavioral disorders in autism children using the experimental method, and the research sample is composed of (20) uniting children who have been divided into experimental and control groups The program addressed the following aspects of behavior (bouts of anger, excessive motor activity, lack of communication behavior, aggressive behavior) and the findings found statistically significant differences among the control and experimental group in the degree of behavioral disturbances; (Adel ,and others 2018) concludes that action education is effective for normal people, and it can do the same for handicappes,with the condition of early use of this education for those particular group of people

.Kaddour Bay (2016) has proved the effect of psycho – action program of mental impaired persons (9-11 years old) Roweb and others (2012) pointed the importance of action program for impaired persons since it is oriented towards capacities improvements to make impaired persons integrated Roweb has obsews absence of action programmes in centres of therapy he visited ,therefore ,he insists that action program is necessary

Aida Hammoudi Study (2012), the impact of using motor games on improving the perception of the mental retardant group (minor retardation) is 09-11 years old. The study aims at identifying the effect of using motor games to improve the sensory perception of the mentally retarded group (a minor backwardness) of males 09-11 years, The research sample selected 20 children randomly divided into two controlled groups of 10 children and 10 children, using cognitive tests and concluded that the applied program had a positive impact on the cognitive and sensational abilities of the mentally retarded The study aims at developing a proposed curriculum of kinesthetic education in the development of certain

## **The Effect of the Sensory-Motor Programme on Some Perceptual Motor Abilities Capacities among the Children**

physical and sensational capabilities of properties (Downer syndrome Campaign), which aims at developing a proposed curriculum of kinesthetic education in the development of certain physical and kinesthetic capabilities of properties (Downer syndrome Campaign). The researcher used the experimental method to design the one-group, and the research sample of 29 children with 9-12-year-old down symptoms was formed and the results showed that the proposed curriculum had a clear impact on the development of some physical abilities

He pointed out that the autism children have a clear deficiency in motor growth and the skills it contains, such as walking, balance, and other motor skills that require control and neuromuscular conformance, and that this deficiency leads to a clear lack of perception, so that they cannot properly arrange or even classify and analyze the effects in their environment The normal spells out that it is not aware of many individuals in its environment and how to deal with it (Al-Rousan, 2010, page 77)

Early-stage learning depends on kinesthetic activities, and the inability to grow and develop the cognitive aspect makes it difficult to learn tasks that require precise motor skills such as balance. (Disgrace, 2013, p. 46) many studies have suggested that autism children achieve low results in the right: Agility, equilibrium flexibility, and responsiveness with their uninfected peers. Through the experience of the former researcher in dealing with this category as a father of a unified child, and through frequent visits to the centers for unity, the researcher noted difficulties in some cognitive abilities; sense-motion (strength, balance, body image and excellence). In this case, the company has been able to provide the most advanced technology in the region, and the company has been in the process of developing the new technology Some cognitive abilities (sense-of-mobility) in autism-affected children mean severe 6-09years, the following question was asked:

– are the Sensory-Motor Programme positively affecting the development of some cognitive abilities in autism-infected children?

Sub-questions:

—are there statistically significant differences between the pre-test and the post-test test of the experimental sample?

Are there statistically significant differences between the control sample and the experimental sample in the dimensional test?

**2. Method and Materials**

**2.1 Definitions of the variables used in the study.**

**2.1.1.Action games:** Those that demonstrate the clear role of the core movements in the content of the game, are designed to overcome the difficulties and obstacles that are put in the way of reaching the game goal (Ressan,2000,p.12) 3-2.

**2.1.2.The sensational discrimination** that children use to process information from the environment and to modify behavior, which has the beginnings of motor patterns that enable a child to perform a movement or series of movements to achieve a particular goal, includes a number of kinesthetic cognitive abilities, namely, orthopic, lateral, directional, body image, and The vacuum is distinguished by the dynamic control.(Norodine, 2004,p. 31)

**2.1.3.Autism:** A systemic growth disorder that appears before a child reaches three years of age and is observed through communication in social interaction skills and communication skills, as well as the emergence of abnormal and exotic repetitive behavioral patterns that are rooted in the perspective of sensational integration or delay in play skills of their types.(Mahmoud, 2002, p. 102

**3.Participants**

- **Research community:** The original research community consists of 26 autism-infected children.

-**Research Sample:** A sample of 10 autism-affected children has a mean intensity and age range (6-9 years), distributed in two samples, 5 control samples, and 5 experimental samples, and the researcher has relied on the diagnosis of pediatric autism specialists.

-**Sample Uniformity:**the sample search has been homogeneous in some variables related to the research: Length, weight, age.as shown in Table(1)

Table(1):represents the mean, standard deviation, mode, and the torsion value of the search sample.

Variables	Unit of measure	Mean	standard deviation	mode	torsion coefficient
Length	cm	109,548	10,285	100	0,85
Weight	kg	26,800	2,458	27,5	0,241
Age	month	95,669	5.025	107	1,25

**Source:**Table (1) shows that all the values of the twist factor are limited to (-+1) indicating the homogeneity of the sample population

# The Effect of the Sensory-Motor Programme on Some Perceptual Motor Abilities Capacities among the Children

## 4. Materials

**Research Tools:** The researcher used Bordeaux's test of kinesthetic abilities.

**-Scientific foundations of Testing:**

- **Stability:** The researcher performed the first test on a sample of the research community of 05 children on 8-10-2019 and was retesting under the same conditions on 15-10-2019, and the researcher used the Pearson correlation coefficient, all of which ranged from 0.72 to 0.89, which is greater than the tabular value, which indicates that the test has high stability Table 2 shows this.

**-honesty:the investigator used two methods:**

**-believe the content:** By offering it to a group of specialist professors

**-Self-trusting:** Measured by the square root calculation of the stability factor, and through Table 2, Bordeaux's test of cognitive abilities is highly honest, with values ranging from 0.72 to 0.89, all of which are greater than the tabular value.

**Table 2 shows the sincerity and stability of Bordeaux's tests of kinesthetic cognitive abilities**

Capabilities		first Test		Test 2		Stability Test	credibility Test
		Q1	A1	Q2	A2		
Walking test on balance panel	front	2	0.40	1.89	0.51	0.72	0.84
	successor	1.76	0.54	1.68	0.46	0.75	0.86
	Side	1.82	0.61	1.75	0.45	0.78	0.88
Jump		1.69	0.67	1.75	0.53	0.80	0.89
Crossing the inhibit		1.71	0.62	1.69	0.65	0.82	0.90
Cross Weber		1.4	0.46	1.51	0.50	0.75	0.86
Imitation of motion		1.70	0.72	1.77	0.75	0.77	0.87
Body parts assign		1.42	0.50	1.35	0.89	0.80	0.89

The program is based on scientific references (Hassani, 2005) (Badawi, 2006) (Hassan, 2009) (for iPhone, 2011) (Mufti, 2012) and based on the opinions of experts and specialists in the field of air-conditioned physical activity, and has taken into account the means and potential of the clinic, the program includes 21 modules at a three-unit rate per week and includes a range of kinesthetic games and sensations Kinetic, focus, and observation games to shout some kinesthetic abilities (balance, body perception and excellence) The session time is set at 45 minutes, and the playroom is initially set up and displayed on the child explaining the basic goal of the game while giving the child the chance to practice. At first,

some incorrect responses are shown and modified by the researcher and the relevant teacher, and the class includes breaks that allow the child the freedom to exercise some of choice Games.

**5.Statistical Analysis:**

Mean arithmetic, standard deviation, Pearson correlation coefficient, t-student testing.

**6.Results :**

Table (3) shows the results of the pre-test tests between the control sample and the experimental sample

Capacities		control sample		experimental sample		degree of freedom	calculated values	The value of the indicative	tabular functions is 0.05
		Q1	A1	Q2	A2				
Test Walking on the balance sheet	front	2.16	0.53	0.21	0.21	08	0.75	2.30	non-D
	successor	1.92	0.18	0.32	0.32		1.11		non-D
	Side	1.68	0.45	0.54	0.54		1.45		non-D
Jump		1.54	0.65	1.62	0.69		0.89		non-D
Crossing the inhibit		1.45	0.24	1.52	0.45		0.98		non-D
Cross Weber		1.35	0.56	1.42	0.45		1.98		non-D
Imitation of motion		1.95	0.42	1.85	0.25		0.92		non-D
Body parts assign		2	0.12	1.92	0.65		0.95		non-D

In table 3, we note that all calculated values are smaller than the tabular value of 2.30. This indicates that there are no statistically significant differences in tribal tests between the control sample and the experimental sample, and therefore there is a homogeneity between the two search samples in terms of cognitive abilities (sense-kinesthetic).

## The Effect of the Sensory-Motor Programme on Some Perceptual Motor Abilities Capacities among the Children

Table (4) shows the results of the pre-and-test tests of the control sample and the sample product

Capacities	control sample					experimental sample				
	pre-test		post-test		test Stodint	pre-test		post-test		test Student
	Q1	A1	Q2	A2		Q1	A1	Q2	A2	
Walking in front	2.16	0.53	2.29	0.24	1.59	2.28	0.21	2.81	0.52	5.63
Walking in succession	1.92	0.18	2	0.42	2.44	1.83	0.32	2.35	0.69	6.92
Walking Side	1.68	0.45	1.77	0.15	1.53	1.75	0.54	2.42	0.58	8.56
Jump	1.54	0.65	1.65	0.25	1.87	1.62	0.69	2.45	0.52	11.54
Crossing the inhibit	1.45	0.24	1.58	0.54	1.19	1.52	0.45	2.30	0.69	6.45
Cross Weber	1.35	0.56	1.43	0.22	1.14	1.42	0.45	2.10	0.58	7.12
Imitation of motion	1.95	0.42	2.1	0.52	0.98	1.85	0.25	2.95	0.52	9.12
Body parts assign	2	0.12	2.2	0.36	1.42	1.92	0.65	3.2	0.69	10.58

In table 4, we note that there are no statistically significant differences between the pre-test and the dimensional test of the control sample, where the calculated values ranged from 0.98-2.44 which are lower than the tabular values that were estimated at 2.77 at the significance level 0.05 and the degree of freedom 04. A statistical indication between the pre-test and the post-test test of the experimental sample, with the calculated values of 5.63-11.54, which are greater than the tabular values of 2.77 at the significance level 0.05 and the degree of freedom 04, the researcher attributes your reason to the effectiveness of the proposed kinetic games.



Table (3) shows the results of the pre-test tests between the control sample and the experimental sample

Capacities		control sample		experimental sample		degree of freedom	calculated values	The value of the indicative	tabular functions is 0.05
		Q1	A1	Q2	A2				
Test Walkin g on the balanc e sheet	front	2.29	0.24	2.81	0.52	08	4.52	2.30	D
	Replaces	2	0.42	2.35	0.69		5.65		D
Side	1.77	0.15	2.42	0.58	6.18		D		
Jump	1.65	0.25	2.45	0.52	5.56		D		
Crossing the inhibit	1.58	0.54	2.30	0.69	7.21		D		
Cross Weber	1.43	0.22	2.10	0.58	6.85		D		
Imitation of motion	2.1	0.52	2.95	0.52	8.35		D		
Body parts assign	2.2	0.36	3.2	0.69	10.02		D		

In table 5, there are statistically significant differences between the control sample and the experimental sample, with calculated values ranging from MAPIN4.52-10.02, which are greater than the two tabular values that were estimated at 2.30 at the significance level 0.05 and the degree of freedom 08, and the researcher attributes the reason for this to the effectiveness of the kinetic games Action-sense games that contributed to the positive engagement of its class.

**7.Discussion**

It is clear from table 4 that there are no statistically significant differences between the pre-test and the post-test of the control sample in all tests, and this confirms the ineffectiveness of the programs used in the specialty clinic for autism children in the development of cognitive abilities (sense-kinesthetic). In the same table, there are statistically significant differences between the pre-test and the post-test test of the experimental sample in all tests, which confirm the validity of the first hypothesis that states: Statistically significant differences between the

## The Effect of the Sensory-Motor Programme on Some Perceptual Motor Abilities Capacities among the Children

pre-test and the post-test test of the experimental sample in some cognitive abilities of autism.

In table 5, we note that there are statistically significant differences between the control sample and the experimental sample in all tests, which confirms the validity of the second hypothesis, which states: There are significant differences in all the post-test tests of the control and experimental samples for the experimental sample in some cognitive abilities of autism children, and the researcher attributes the positive and effective impact of the proposed program, which included many motor-sensational games that were intended to teach children the correct walking in different directions and oscillation in one foot. The program also included some of the following: (Mohammad, 2007), a promotion of the child's body and the development of various motor skills with educational objectives. (Mohammad, 2007, 31) the program also included some of them Focus and observation games like skipping inhibits and games that aim to increase body and emptiness, which help you draw your baby's attention to some of the most intrigues (Ahmed EmadEddin Younis, 2018) Focus and attention games bring children and others closer and more emotional to each other, gaining a lot of attention, following orders, and increasing their knowledge and information, creating some challenges in overcoming their difficulties and problem-solving ability.

These findings are consistent with Hamoodi Aida's study (2012), which noted that the use of motor games has a positive effect on improving the perceptual and kinesthetic perception of the category of mentally retarded (Minor backwardness) is male 09-11 this is confirmed by the study of Hussein Amir Sabri (2012), who concluded that kinesthetic exercises contribute to reducing the random kinesthetic behavior of autism children with moderate intensity (6-12 years old), as well as by the study of Nchwan Abdullah (2003), who confirmed that the proposed kinesthetic approach contributed to the development of some physical and sensational abilities of properties (The Downs symptoms Campaign).

### **8. Conclusion :**

Kinetic games are a psychological treatment technique based on using play as a field of bleeding from emotions, internal conflicts and developing motor skills, it is considered one of the most important ways and techniques in raising the body, and training kinesthetic awareness through training the senses. On this basis, we have conducted this study to find out the impact of using kinetic games on the development of some cognitive abilities (sense-motion) in children with autism,

the mean-severe, 6-09years. We used the experimental method in two equal groups with pre- and post-nocular testing on a sample of (10) autism-affected children with an average age of 6-9 years, and Bordeaux tests to measure cognitive abilities (a sense-motion), and the results showed that motor games positively affected the development of some cognitive abilities (a sense-kinesthetic). Children with autism and suggestions that we have made are:

- use kinetic games with other therapeutic programs in autism centers and clinics.
- the need to involve parents in motor therapy programs for their children.
- Start with motor-sensation programs at an early age because the program the earlier it starts, the better its results.

The need for the State to pay attention to these categories by establishing centers and providing specialized tools, equipment and personnel.

# The Effect of the Sensory-Motor Programme on Some Perceptual Motor Abilities Capacities among the Children

## 9.References:

- Al-Kawuli, Muhammad Al-Hamami and Amin.(2011); bases for building mathematical education, Cairo, Dar Al-Khumi.
- 2-Judea, P.(2010), Introduction to Mental Disability and Life skills in the light of Theory of the mind, Amman Dar Al-Atea.
- 3-Al-Rawsan, Farouk (2010); Introduction to Mental Disability, Amman, Dar Al-thought for Publishing.
- 4-Al-Zaher Qahtan Ahmed (2009); Al-TuUnite, Amman, Dar Wael.
- 5-Mufti Perivan Abdullah (2014);the impact of the focus and observation games program on the treatment of a lack of attention accompanied by the excess activity of a particular eye and of children (7-9) years, physical Education College, Babylon University.
- 6-Ahmad EmadAddinYounis, following a proposed program of kinetic games in developing the kinesthetic perception of first-year students (6-7 years), published in the journal of athletic creativity, Maj.9, No.1, Mohamed Boudiaf Al-Musaylah University, Algeria, 2018.
- (2006); the effectiveness of a developmental skills development training program in a sample of autism children; unpublished Ph.D. thesis at Al-Manba University.
- (2009); the effectiveness of early intervention through play treatment in the education of social skills in unpublished Masters, Faculty of Education, Cairo
- 8-Hassani, Samer Jamil (2005); effectiveness of a play education program to develop the communication of the children of autism; unpublished Masters, Faculty of Education, Jordan.
- 9-Hussein Sabri(2012)the effect of motor exercises in reducing the random motor behavior of the children of the autism spectrum moderate intensity (6-12 years), unpublished Masters, College of Mathematical Education, Babylon University.
- 10-Khattab Muhammad, Abdul Fattah Kamelia (2008); psychological treatment with monotheist children (edem), Cairo, Al-Kifah Publishing House.
- The salary of Osama Kamel (1994); the kinesthetic education of the child T3, Cairo, Dar Al-thought al-Arabi.
- 14-Sadqi Noruddin,(2013);Psychology Sport concepts Theory-Guidance & Guidance-scale, Alexandria.modern University Office.
- 15-Bint Jamal's well-being (2011);developing language communication by playing for a sample of adolescents with autism disorder, unpublished Masters, Psychology Department, Um Al Qura University, Saudi Arabia

16- Mahmoud Sarheid (2002); the effectiveness of a training program to alleviate behavioral disorders in autism children is an educational and social study, Halwan University, Cairo.

17-Muhanna, Fayez, (2013); modern Mathematical Education, Damascus, Talas Studies and Publication House.

18-Muhammad, ShehataSulaiman, (2007) ; psychological Play theoretical Theory and applied examples, Alexandria, Dar al-Fatah.

19. bohain, y. v. (2014). Initiation à la course du 100 m au 100km. paris:editionvigot.

20. napoli, S. (2001). The young child and the environment, Issues related to health, nutrition, safety, and physical education activity. . Boston: Allyn and Bacon.

21. Joseph ,B.(1980): Psychology of motor Learning ,prentic –Hall,Inc, New York  
The Autistic spectrum, Agnide for parents and professionals, London Constable and company limited. Wing, Loyna1996

22.Webb,Nancy Boyd 1999 play therapy crisis intervention with children play therapy with children crisis .NEW YORK. The Guil Ford press

Kadourbey Bel -kire. (2016). The effect of a psychomotor education program on some cognitive motor abilities of the mentally handicapped. journal of sport science technology and physical activities. Issue13. P 152-175

Rawab Amar and all. (2012). Acceptance of disability and adapted physical activity in Algeria. journal of sport science technology and physical activities. Issue 09. P 102-115.

Hammoudi',(2013);the use of motor games to improve the perception of kinesthetic motion in the category of mentally retarded journal of sport science technology and physical activities. Issue 10. P 194-210.