

The effect of modeling and simulation on teaching some basic skills to people with mental disabilities (transitional movements)

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Introduction and research problem:

Interest in sports is something indispensable, as it is a basic requirement for preserving youth. Sports have an important role in the lives of individuals and societies. It is evidence of the extent of progress and advancement of countries. Some countries have become famous through their interest in sports and their superiority over others in sports competitions, and practicing sports has an important role in the lives of individuals. In society, no one of all age groups is excluded in the pursuit of health and well-being. Childhood is considered the true wealth of people, and the civilizational progress of nations is measured by the extent of their interest in childhood in general and those with mental disabilities in particular. Children in the pre-school stage tend to play that depends on physical movement. This is the happiness that The feeling that the child feels while playing indicates that play represents a natural satisfaction of his basic needs. Through play, the child develops his body and mind, achieves self-fulfillment, and achieves integration between mental, motor, psychological, and social functions.

Modeling is one of the important processes in the process of modifying behavior as a result of observing the behavior of another person. This process is essential in most stages of human learning because we learn most of our behaviors by observing the behavior of others and imitating them. The child's behavior is often influenced by observing the behavior of other individuals. (2)

There are fields of modeling methods such as daily life skills, social life skills, linguistic skills, purchasing skills, professional skills, academic skills, and sports skills.

Rogers and others(15) (2005) believe that there is a weakness in imitation among children with disabilities, especially motor imitation, but early intervention and educational programs have a significant impact on improving these skills in these children, and these matters are of great importance in the development of many It is one of the skills of children with disabilities and the development of their verbal and non-verbal communication, and the deficiency in their motor imitation skills has a great relationship with their difficulties in social interaction and communication.

The disabled person, like other children, tends to play and tends to use play tools. He has many abilities that need the attention of the parents, teachers, and supervisors who are in charge of him, for him to be directed in the right direction. Play is one of the necessary activities that can help develop the physical, mental, psychological, and social aspects. (23 : 3) 23 (3 :

Kenny et al (14) pointed out Kinny, Vedora & Stromer, (2003) To the importance of using methods that are popular with children with mental disabilities in their training, which arouse their attention and help raise their abilities and strengthen their weaknesses, and also help in enhancing various communication processes.

Amin Al-Khouly and Osama Kamal (1999) point out that emphasis should be placed on learning basic motor skills, such as correct standing, running, jumping, hanging, throwing, and others, in the child because they are basic movements that are important for his environmental adaptation while trying to teach him some (special) motor skills that suit his condition and that do not require many cognitive dimensions or high compatibility between his body parts, and at the same time work to increase his level of physical fitness. (296: 4)

Developing a child's motor skills and motor abilities is crucial to helping the child participate in motor activities and sports to gain motor experiences. A child who has not had the opportunity to develop these skills may face difficulty or rejection from peers. (45: 5)

Muhammad Sobhi (2000) points out that individuals with mental disabilities have become an important social phenomenon, whether in

civilized societies that care about their citizens to provide them with the best opportunities for social harmony, or in developing societies, where individuals with mental disabilities become a burden on the family and the state, due to... They require energy and effort to provide them with physical and psychological care. (122: 10)

Zainab Mahmoud make sure that interest in special education for children with mental disabilities began at the beginning of this century, during which great progress was achieved in the field of their care. The world also witnessed interest calling for the practice of isolating people with mental disabilities within private schools and institutions to a new perspective based on... On the connection between people with mental disabilities and normal people, and that this isolation only occurs when the nature of the disability is so severe that satisfactory educational and pedagogical goals cannot be achieved except through special programs and activities. (9:13)

The goals of special physical education for people with mental disabilities do not differ from the general goals of physical education for normal people. Therefore, physical education activities for people with mental disabilities are often the same as those for their normal peers, and may even be their primary means of success and self-improvement. (5:36)

research importance :

- There is a scarcity of studies that address the development of basic motor skills in children with intellectual disabilities in the age group (5-8) years.
- Opening new horizons for the use of modeling for young players in general and those with mental disabilities.
- Developing basic skills for children with intellectual disabilities by capturing their interest and motivating them to continue learning while achieving maximum enjoyment and engagement.

Search Aim:

1 - The research Aim to identify the effect of using modeling and simulation on the development of some transitional motor skills for young players with mental disabilities for the age group of 5-8 years.

Locomotor Skills :

(Running - jumping - Gallop - gap - jump - slide).

In this research we study (Running - jumping -Gallop)

Research hypotheses

In light of the research objectives, the following hypotheses were made:

- 1- There are statistically significant differences between the pre-and post-measurements in transitional skills in favor of the post-measurement among young players with mental disabilities, the research sample.

Model :

Modeling is defined as one of the forms of observational learning, where people observe themselves or their peers successfully performing a behavior, then imitate the behavior and apply it in new situations. It is a behavioral intervention based on observational learning that includes teaching specific behaviors through observing models to acquire

Steps to Procedures a search

Pre-measurement:

The researcher used the Orlich general motor development test, second edition, to test 6 transitional motor skills. In this research, she studied only three elements, namely running, jumping, and gallop.

and using modeling in program it do in 6/4/2023

post- measurement:

After completing the program, the researcher conducted a post-measurement by testing transitional motor skills using the Orlich test, second version 9/7/2023

The research procedures included a set of basic steps:

Research Methodology :

The researcher used the experimental method with a single group design (experimental) and used measurements (pre-post) to suit the nature of the research.

research community:

Young players at the Helwan Youth Center with mild mental disabilities who are capable of learning, from 5-8 years old, are registered in the Egyptian Special Olympics, and their number is (15) players.

The research sample:

The sample was selected intentionally. The research sample included (10) Players (5) Boys, (5) girls, Among those enrolled in the Egyptian Special Olympics for the 2022-2023 sports season.

Data collection methods :**The researcher used the following tools to collect data for this research :**

First: References and studies related to the research.

Second: Official records

- Registration Form :

The researcher used the form for the Orlich test (Test of Gross Motor Development) (TGMD2). It had a collection form Data for young players, such as name, age, preferred hand, and preferred foot, in addition to motor skills results.

- Orlich test model

- experts opinions poll on the educational program.

Third: The educational program :**Program Aim:**

– Developing some transitional motor skills for children with mental disabilities using the modeling method represented in transitional motor skills (running, galloping, and jumping) and These are the skills that we study it in research,

Proposed programme

The researcher took into account the scientific foundations of the training program, which begins with a good warm-up, which lasts from 5 to 10 minutes, to raise the body temperature and stimulate blood circulation. In each training unit, a modeling method is used according to the players' need and ability to use modeling.

- Program duration: The program took three months to implement, with (12) weeks, with (2) weekly units and (24) training units. The training unit time is 45 seconds, and Table (1) shows a model for organizing a daily unit.

Skill objectives: walking - running - jumping

Educational objectives: trust - cooperation

Tools used: steps, balls, floor markers, cones, and tapes

Table (1): A model for organizing a daily unit

Modeling style	Objectives Kinetics	Time	Content	
A model of players with disabilities warming up	stand up	10 BC	<p>Accompanied by music</p> <ul style="list-style-type: none"> - [Standing] Walking in place while moving the arms beside the body - Standing with both legs open Close and open the legs with move arms - Fast running in place with knees raised high - Run forward for 5 metres, then run backwards for 5 metres, touching the bottle to the ground, front and back - Repeat the previous exercise left and right 	Introductory part Warm-up
Use pictorial modeling, live modeling	Walking Running Jumping	30 BC	<p>Accompanied by music</p> <ul style="list-style-type: none"> - Make circle by children The coach stands in the middle of the circle Passing the ball between players in sequence by using steps and make jump - by using same circle Each player passes the ball to the coach in the middle, and make change in his place with another friend - Each player catches a ball and spins it around his head and walk - Each player catches a ball throw it by jump - pass ball to another friend by using run and jump - the same training by use gallop. - Make same training by use different ball size and floor markers 	The main part
live modeling	happiness Trend awareness	5 BC	<p>Accompanied by music</p> <p>[Standing] Walking forward 4 steps, then standing (4), repeating backward, then right, then left.</p> <ul style="list-style-type: none"> - All players run and try catch another children 	The concluding part

Program implementation methods:

- Explaining exercises, displaying skills, and ensuring that young players understand the performance.
- Using the researcher Modeling: The methods used in modeling varied (pictures, videos, a model of players with mental disabilities A model of normal players, assistance from normal players and those with mental disabilities (all young players participating during the performance as well as when showing a distinctive level of performance, and stimulating the motivation of young players by using modeling.

Test of Gross Motor Development (TGMD2) was filled out to collect data for each sample member. This form included the players' data, including the player's preferred hand to use, as well as the foot, and the results of

the various tests (Run- Gallop- Hop- Leap- Horizontal jump- Slide) the researcher will study some skills of this test (run-hop- Gallop) (Attachment 1)

Statistical treatments:

The arithmetic mean, the standard deviation, the skewness coefficient, the significance of the differences using the Mann - Wauty method, the correlation coefficient, the significance of the differences, and the percentages of change.

First: Display the results:

This part show the results that were reached through statistical treatments of the research data:

Below is a presentation of the results obtained:

Significance of change between the two measurements (pre and post) Table (2) and percentages of change Table (3)

Table (2)

The significance of the differences between pre-measurements and post-measurements in the transitional skills under investigation (n=10)

Probability of error	Z value	Signal direction	Total ranks	Average rank	Dimensional measurement		Pre-measurement		the exams
					A	M	A	M	
0.004	2.919	- Zero + 10 = zero	0.00 55.00	0.00 5.50	.73786	6.1000	.69921	3.4000	Running
0.004	2.919	- Zero + 10 = zero	0.00 55.00	0.00 5.50	0.527	4.500	0.632	2.800	Jumping
0.004	2.913	- Zero + 10 = zero	0.00 55.00	0.00 5.50	0.516	6.600	0.483	3.700	Gallop

The table No (2) shown: There are statistically significant differences between the pre- and post-measurements **in all the transitional skills** under study and in the direction of the post-measurement, as all error

Percentages of change	Dimensional measurement	Pre-measurement	the exams
79.4	6.1000	3.4000	Running
60.7	4.500	2.800	Jumping
78.4	6.600	3.700	Horse step

Table (3)

Percentages of change between the average of the pre-measurements and the average of the post-measurements In the transitional skills under research (n=10)

probability values are smaller than the significance level of 0.05.

The table No (3) shown:

The percentages of change between the average of the pre-and post-measurements in transitional skills were limited to between (60.7% and 80.6%).

Second: Interpretation and Discussion of results:

It is clear from Tables (2, and 3) the positive effect of the proposed training program using modeling on improving transitional skills (running, jumping, and horse stride). Thus, the hypothesis is validated, which states:

- “ There are statistically significant differences between the pre-and post-measurements in transitional skills in favor of the post-measurement among young players with mental disabilities.”

The researcher believes that the proposed program helped improve the motor skills of children with mental disabilities (run-hop-gallop) due to the content of the program appropriate to the nature of the children participating in it. As all the games included focus on these skills, and it may also be due to the use of methods and strategies used, and this may agree with what some references and studies have indicated, such as Helmy Muhammad Ibrahim and Laila Al-Sayyid Farhat (1998AD) (6),

Khaled bin Youssef Saif Al-Din (2013AD) (7) In addition to what Khairiya Ibrahim Al-Sukkari and others (2015) (8) pointed out to the importance of play and its role in acquiring motor skills for the child during the pre-school stage, where play is a functional, mediating and educational entry point for motor development and learning, and that play is important in acquiring skills. During the preschool period. This agreed with Magdy Mahmoud and Nahid Fahmy Hatiba (2015 AD) (12) that play develops the child's muscular system, and motor games also help in developing the child's physical and motor skills, and that motor activities provide opportunities for the child to be able to express himself, through which he can learn motor skills.

The researcher believes that the positive impact of the program may be due to the method used in organizing the content, where a logical psychological organization was followed, and was keen to implement the characteristics, inclinations, and abilities of children and their corresponding needs and desires on the one hand, as well as progression, sequence, and continuity on the other hand, and based on what references and studies have indicated. Hisham Abdullah Muhammad Al-Rabie (2007AD) (13), Mona Muhammad Naguib, Maha Muhammad Abdel-Wahhab (2015AD) (11), Helmy Ibrahim, Laila Al-Sayyid Farhat (1998AD) (6), Khairiya Ibrahim Al-Sukkari, and others (2015AD) (8)), Amin Al-Khouly, Osama Kamel Rateb (1999)(4), Ahmed Maher, Ali Muhammad Abdel Majeed, Iman Ahmed (2007 AD) (1) About the foundations and principles of building and organizing motor programs for children with mental disabilities and for their peers who are the same chronological age, and the importance of organizing the content and choosing activities that suit the nature and characteristics of the participants in the program. Here comes the role and importance of modeling in the progression and choosing the best appropriate teaching methods at each stage. About the foundations and principles of (1 programs for children with mental building and organizing motor disabilities and for their peers who are the same chronological age, and the importance of organizing the content and choosing activities that suit the nature and characteristics of the participants in the comes the role and importance of modeling in the Here c .program

progression and choosing the best appropriate teaching methods at each stage.

The researcher attributes the development that occurred as a result of using the modeling method in the proposed program because of its importance in teaching motor skills to players because of their ability to imitate. This is consistent with Al-Zubaidi's study, which proved the effectiveness of the modeling program (living and inanimate) in developing emotional intelligence, and the methods of Visual stimuli (modeling) are of great importance in their use as educational means in training children with special needs for skills, as the skills and behaviors depicted develop imitation and simulation in them, and provide new opportunities to address the deficit and shortcomings of this skill in children with mental disabilities, as shown by the study of Kalberger and Marinda, which showed It showed that the video method is effective in acquiring the imitation skill among children with mental disabilities while retaining and remembering it

First: Conclusions:

In light of the research objectives and hypotheses, Within the limits of its sample and procedures, the researcher presents the following conclusions:

- 1-The proposed program uses modeling Simulation has a positive effect on the development of transitional motor skills such as running, jumping, broad jumping, jumping, Horse steps, and slides for participating children.
- 2- The use of modeling and simulation in the program contributed to improving general motor development.
- 3 - The program, using modeling and simulation, improved the general motor development of the children participating in it.
- 4 - Taking into account the principles of constructing and organizing the content of motor programs for children with mental disabilities would have a positive impact on the development of basic motor skills.

Second: Recommendations:

In light of the research results, the researcher presents the following recommendations:

- 1- Using programs using modeling, simulation, and similar programs for children with mental disabilities to develop transitional motor skills, tool control skills, and non-transitional skills for children with mental disabilities.
- 2- Use and design modeling and simulation programs in all sports and various disciplines and levels for people with mental disabilities.
- 3- Paying attention to designing educational programs for children with mental disabilities because they contribute to developing and building the

basic base for athletes at the global level of young players with mental disabilities.

4 - Pay attention to the stage under the age of 8 for children with mental disabilities Because it is the stage of teaching basic motor skills.

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