The Effect of the Animation Pictures Training Program on Improving the Basic Skills of Track and Field (Athletics)

Submitted by:

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Abstract:

This study aims at investigating the effect of the animation pictures training program on improving the basic skills of Track and Field (Athletics). In this study, the researcher has used the experimental approach with one group by using the pre- and post-tests, because this approach is suitable for this study.

In accordance with the study aims and the methodology, the results of this study show that the proposed training program with moving pictures has a positive impact on the development of the basic skills of field and track competitions (running, throwing, jumping) for children with mental disabilities (Down Syndrome) as well as there are improvements between the pre- and post-tests in the basic skills of field and track competitions (running, jumping, throwing) of the study sample.

Keywords: the Animation Pictures, Track and Field, Training Program.

Introduction:

A disability is considered as a human and social problem, this problem has become the focus of attention of many advanced societies "post-industrial countries". So, the care of disabled persons is one of the central activities of the advanced societies, which is also considered as a benchmark of economic growth.

However, disability is one of the essential problems facing both the civilized and non-civilized societies. People suffering from mental disability make up an increased percentage of the society, which is a major problem in the advanced societies. The disablers are represented a disable human capacity who the State and society must become aware of them as well as provide the necessary services to them in order to become a productive energy in society.

People with special educational needs and disabilities are treated so badly in some ancient societies (they were even tortured and killed). These bad treats which disablers are exposed by the society, before these societies appreciate their states, and guarantee a life of dignity for them in order to deserve integrated care. The societal perception of disablers has developed through several stages. These changes in philosophical and societal perception about the people with special needs have reflected a deep realization, which was that "when the society neglected people with special needs that leads to compound their problems and complications of their disabilities and their side effects, so they become a burden on their families and society. At last, society will only gain a heavy loss of a part of its human wealth, which must invest it and turn it into an active and productive energy within the framework of its development plan, in addition to the fact that society, by neglecting them, denies them human and social rights that it must guarantee in line with the principles of social justice, equal opportunities and equality among people.

Individuals with disabilities are a group of individuals who differ from the general population of their owners in physical, mental, emotional and behavioral characteristics. They have become a group of young people who require special care and attention in terms of educational and planning curricula and special capabilities that guarantee them education, and methods commensurate with their abilities. These disabilities are divided into:

1. Intellectual disability.
2. Physical disability.
3. A sensory disability.

The reasons behind intellectual disability due to environmental and genetic causes, in spite of the overlapping between them. So, the effect of genetic causes starts at the beginning of creating embryo. While the environmental causes may effect on the embryo during the childhood.

One of the most important characteristics of the mentally handicapped is that it is necessary to develop the motor performance of the mentally handicapped, which depends on sports programs, their seriousness and their ability from time to time, so that they are modified according to the conditions of these people without others, as they tend to individual games and their activities and are not inclined to group games.

The availability of kinetic experiences provides children with an atmosphere of spontaneity and enjoyment, and this requires changing or modifying the traditional kinematic models for competitions such as running, jumping, and throwing.

The field and track competitions are the backbone of the Olympic Games and the mother of other sports and a measure of the civilization of peoples as well as they create in the individual physical, skill, psychological and moral integration, so it was considered the first basic sport in the world.

The field and track races are among the oldest sporting activities that humans have practiced not only since the dawn of history, but when their return intensifies. Walking, running, jumping and throwing are all innate movement activities and methods used by the individual to achieve goals in every stage of his growth and development.

It is natural for a person to practice this sport because it is a natural extension of the development of the individual's growth since his birth. The first thing a child does after standing on his feet will walk. If his return intensifies, he starts running, then sprinting, jumping and finally throwing. From here the field and track competitions are called basic natural movements.

The field and track competitions contribute positively to achieving the comprehensive and balanced growth of the individual in all physical, psychological and social aspects, as they gain their practitioners a high level of physical fitness, and they develop in them the voluntary and moral traits of the individual, as they gain strength, determination, patience and continue the struggle to improve his number and reach the goal he seeks , This is in addition to getting used to order, tolerant sportsmanship, good manners, humility and respect for others.

The International Athletics Federation works to motivate children to participate in physical activities and try to recognize the benefits of regular training, and the World Health Organization (WHO) notes that play is a basic necessity in the child's life to achieve growth and integration in his personality and helps to adapt to himself and the environment and basic motor skills play an important role The matter that achieves the comprehensive and balanced development of the child physically, physically, healthily, and emotionally, therefore, the various programs and activities must be planned in the form of programs aimed at achieving kinetic education by acquiring many basic skills that are commensurate with the characteristics, tendencies and abilities of children.

The image is an important component of hypermedia and it takes many forms, including (still images, and moving images). It may be sequentially to form an integrated movement and it is widely used in the field of physical education.

The use of moving images plays an important role in children's lives because of its wide uses, methods and techniques, and another reason that calls for its use is that it can show things that other mass media cannot show, so animation begins where live films end. It has many fields, including television advertisements, public relations films, educational and training films, entertainment for children on television, short theatrical models, and feature films.

The animated films have their own fascination and artistic aesthetics, as they express an imaginary world that pays tribute to all those who see them as old and young. Animation is an artistic method of producing visual films in which the film producer prepares animations instead of recording them with a camera as they actually appear, and the production of a film for animation requires the filming of a series of drawings or movements one by one so that each frame in the film represents one drawing of the drawings and a slight change in position for the view or object that was filmed from one frame to another. When the tape is turned into a movie machine, the back-to-back images appear to be moving. The animation has a great impact on children, because it has the pros and cons of each of them working, so watching the animation sits useful for the child in many aspects where the child's imagination develops, feeds his abilities, and meets some of the child's psychological needs and saturates him with many instincts and add to the child's pleasure and joy.

If we look at a child watching the animated movie, we find him like a semi-awake dreamer, away from all around him, enjoying a fantasy world that allows him to stay away from reality, untied by his limitations.

Besides, children are attached to the animations that are easy to observe, as they are keen to follow their animated characters coming from the world of human, animal or inanimate bodies adopted in their artistic treatments on the rhythm and movement of fast. In addition to color and sound, in order to clarify some things for the child and to introduce him to what might benefit him or harm him in the physical environment surrounding him.

That the child's realization of the events of the animated film is not an isolated incident or an automatic reflection of a set of variables, but a enjoyment of the various vocabulary itself.

The animations are used in many interactive activities, games, simulations, puzzles and problem solving in order to stabilize knowledge, and give the opportunity to the learner to see the skills and how to perform them in the best way so that they can be practiced and performed better.

Within the limits of the researcher's science he found that there are a lot of studies and research sought in terms of functionality and vitality and neglected the skill and psychological aspect in general and field and field competitions in particular.

Hence, the thinking of developing modern methods and methods to be used in the training process to communicate the basic skills of field and track competitions (running, jumping, throwing) for children with mental disabilities down syndrome category, which is animation as a means of contributing and participating actively in attracting attention to the delivery and promotion of the training material.

The Objective of the Study:

This study aims at designing a program by using animation pictures in order to identify the effect of the animation pictures training programme on improving the basic

skills of track and field "Athletics" (Running, jumping, and throwing) among children who suffer from intellectual disability (Down's Syndrome).

The Hypotheses of the Study:

The following hypothesis has been put in accordance with the previous and theoretical studies, which is:

There are statistically significant differences between the pre and post-tests of the basic skills of track and field (Running, jumping, and throwing), which was for the post-test.

The Methodology of the Study :

In this study, the researcher has used the experimental approach with one group by using the pre- and post-tests, because this approach is suitable for this study.

The Scope:

Human Limit:

- Selecting the sample:

The sample of this study has purposively selected (Down's Syndrome), in al-Tarbeyah al-Fekriah School in Alexandria for the academic year 2018.

Table (1): Shows the Study Sample

	Totally No.	Female Pupils	Male Pupils	Age
Study Sample	13	6	7	8-12
Main Study	10	4	6	8-12
Pilot Study	3	2	1	8-12

In collecting the study sample the researcher has followed the following:

A. The children should be with intellectual disability (Down's syndrome).
B. They have never practiced the basic skills of track and field.
C. The pupils' ages ranged between 8– 12.
D. They must have a degree of mild cognitive impairment "MCI" (Intelligence quotient is ranged between from 50 to 70).
E. The mental age of them must be ranged between 3- 6 years.
F. They do not suffer from any organic diseases.
G. They must have no abnormal posturing (Appendix 3)
H. They must be gone through early childhood intervention (ECI).
I. Children should not have previously been exposed to any programs to reduce emotional behavioral disorders.

Place Limit: Al-Tarbiyah al-Fikriah School in Egypt, Alexandria.

Time Limit:

Three pilot studies have been conducted from (13/1/2018 to 27/2/2018), the pre-tests conducted from (25/3/2018 to 28/3/2018), the main experience was conducted from (2/4/2018 to 4/7/2018) and the post-tests were conducted from (6/7/2018 to 8/7/2018).

The Training Program:

This program intended to develop the main skills of track and field "Athletics" (Running, jumping, and throwing) as well as reduce reduce emotional behavioral disorders (Down's Syndrome).

The Program Timeframe:

Table (2) shows the program timetable

No.	Variables	Time
1	Weeks number	12 weeks
2	Units Number per week	3 Units
3	The Time for each unit	50 – 60 minutes
4	Totally number of the units	36 Units
5	Totally time	1800 – 2160 minutes.

Table (3) shows the Unit Time Distribution (60 minutes)

Time **(minutes)**	The Content
10	Showing the animation images
10	Warming up
30	Skillful Performance
10	Pacification

Table (4) Shows the Preparation of the Training Load through the Program

No.	Weeks	Sizes		Breaks
		Frequencies	Groups	
1	1st & 2nd weeks	8 – 12	2 – 3	2 to 3 **minutes**
2	3rd & 4th weeks	2 – 10	1 – 2	2 to 3 **minutes**
3	5th & 6th weeks	1 – 2	1 – 4	1 to 5 **minutes**
4	7th & 8th weeks	1 - 2	4 – 10	2 to 3 **minutes**
5	9th & 10th weeks	1 - 2	4 – 6	1 to 5 **minutes**
6	11th & 12th weeks	1 - 3	3 - 5	1 to 5 **minutes**

The Steps of Designing the Training Program Using Animation Pictures:

Preparing a training program by using animation pictures needs to many steps that the researcher should do, with the help of a working group who have specific characteristics like the technical and practical skills to create animation pictures of main skills regarding the track and field.

The Main Principles of the the Animation Pictures Program:

A. Observance the dynamic sequence of skills and performance appraisal at the time of presenting.
B. Observance the performance speed and timing of skills and tests at the time of presenting the animation pictures.
C. Identify the time to watch the animation pictures in the training unit, the length of the training program period.
D. Presenting the animation pictures by using a computer (128: 57), (137: 147) and (125:155).

Designing Steps:

The Preparatory Phase:

A. Taking photographs through implementing the exercises and skills of the training program
B. The images have shown by the supervisor.
C. Connecting with specialists who interest in moving images especially those who interest in 3D MAX.
D. Designing moving images of training and skillful.
E. Presenting the moving images video to the supervisor.

The Implementation Phase:

- Processing the scientific material represented in the animations for the training and basic skills of field and field competitions as well as tests on skills and stored on the laptop (laptop(
- Moving images are displayed in the form of frames or pages on the laptop screen.
- Move from one window (page) to another after it achieves the goal of display on the screen.
- A list of the contents of the program will appear on the screen to deal with the part or topic that will be trained based on the pre-prepared training program.
- Display on the screen the numbers of exercises and by clicking on the number is displayed animated video for training.
- The student performs the skills he learned during the animated video.
- The animated video will be replayed again in case of any lack of performance or understanding of the player. (118 : 103 , 211)

The Implementation Procedures of the Study:

The Pre-tests:

- Appling the observation form (for behavioral disorders) for the parents of the children of the same research. Annex No. (7) Application of the proposed program.

The program was implemented for (12) weeks by three training units days (Sunday, Tuesday, Thursday) of each week where scientists recommend training three days a week, especially young people where they need rest to avoid overload, and the proposed training program was implemented using animated images of the experimental group.

Some of Moving Images




An Example for a Weekly Unit of the Training Program

Week No. : First Date:..... to .....

Time: 50 minutes

Days: Sunday, Tuesday and Thursday

Al-Tarbiyah al-Fikriah School in Alexandria– Egypt

The Objective: improving the general and special physical abilities of the throwing skill.

Parts Unit	The Content of Training Unit	Time (minutes)	Units Number	The training Unit	Groups No.	Break (between groups)	Freq. no.	Break (between frequencies)
The Preparatory Stage	Presenting the moving images	10	1 -3	Making throwing skill	1	——	30-40	——
	Warming up	10	1 -3	- Slow running in the track - Muscle's stretching legs and arms	1 2	——	2 -3 10 - 12	——
The Main Stage	skill performance (throwing)	20	1 - 3	- Exercise no. (21) - Exercise No. (22)	3 -2 3-2	2 – 3 min.	10 - 12	——
The final Stage	Pacification	10	1 - 3	- walking in the track and Muscle's stretching	1	——	2 - 3	——

First: Data Analysis

According to the hypothesis of this study, that stated that "there are statistically significant differences between the pre and post-tests of the basic skills of track and field (Running, jumping, and throwing), which was for the post-test, the following has been used statistical characterization of data before the experiment:

Table (5)

The Statistically Significant Differences of the Main Skills in this Study

Statistical significances / Basic Skills	Measurement Unit	n = 10				Coefficient of variation
		Mean X	+SD	Coefficient of Skewness	Kurtosis	
Running	S.	8.26	1.08	-0.35	-0.75	13.08%
Throwing	M.	8.33	1.09	1.02	0.34	13.10%
Jumping	Cm.	0.52	0.02	-0.15	-0.32	3.61%

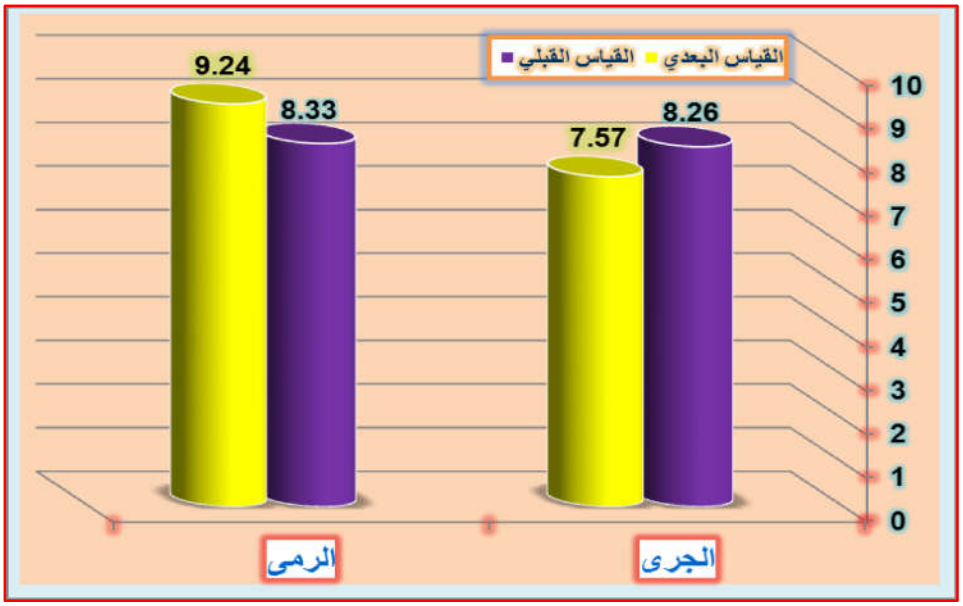
It becomes clear from Table No. (5) that the values of coefficient of skewness range from (--0.35) to (1.02), thus it becomes evident that these values are between (± 3), and this confirms that the sample is free from defects in non-equilibrium distributions. It is also clear that all the coefficient of variation values concerning the basic skills of the study sample are arranged between (3.61%) and (13.10%), which is a value less than 20% of the mean, which indicates the homogeneity of study community in all the variables in this study.

Table (6) shows the Statistical significances of the main skills in this study for the experimental group in the pre- and post-tests n = 10

The statistical significance Main Skills	Unit of measurement	Pre-tests		Post-tests		Mean		T-value	The rate of improvement
		Mean X -	± SD.	Mean X -	± SD.	Mean X F -	+ SD. F		
Running	**S.**	8.26	1.08	7.57	1.08	0.69	0.24	9.19*	8.41%
Throwing	**M.**	8.33	1.09	9.24	1.25	-0.91	0.76	3.80*	10.96%
Jumping	**Cm.**	0.52	0.12	0.62	0.13	-0.10	0.06	5.66*	19.88%

 # tabulated T value at 0.05 = 2.262

From Table 6 and Figure 1 on the statistical indications of the basic skills in this study between the pre- and post-tests of the experimental group, it is clear that there are statistical differences where the basic skills improved in the experiment group, with with statistical significance at 0.05 where T value ranged between (3.80, 9.19) and the rate of improvement of (8.41%, 19.88%).



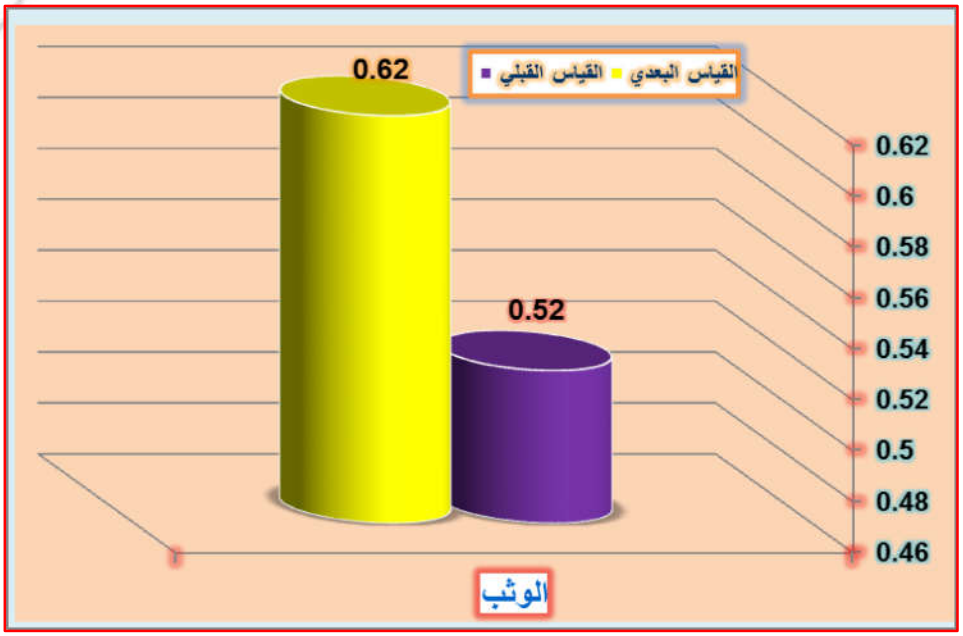


Figure (1): The arithmetic mean (mean X) of the basic skills in this study among the experimental group in the pre-and post-tests

Results and Discussion :

Discussing the Results of the Hypothesis :

There are statistically significant differences between the pre and post-tests of the basic skills of track and field (Running, jumping, and throwing), which was for the post-test.

It is clear from the table (6) that there are statistically significant differences between the tribal and dimension measurement of the experimental group in the basic skills of the field and track competitions in question in favor of the distance measurement where a moral indication appeared at a moral level (0.05) and the value of (t) calculated between (3.80, 9.19) and the ratio of improvement (8.41%, 19.88%).

The improvement in the basic skills of field and track competitions (running, jumping, throwing) may be due to the training program using motion pictures. As the

moving images have a role in attracting the attention of children, which leads to increase the ability of children to retain the image of the performance of skill more and thus they have the ability to remember the exercises more strongly, as a result of their retrieval of this performance from what they saw in the animations on the screen of the laptop, as the presence of watch time ten minutes of the training unit increased the effectiveness of learning these basic skills for field and track competitions under consideration besides the time allocated for training at the skill level in the training unit.

This indicates that the proposed training program, which was implemented using motion pictures, had a positive and effective effect to develop the basic skills of field and track competitions (running, throwing, jumping) on the experimental group.

There is no doubt that the modern technology has helped a lot to highlight the aesthetic elements expressed by the moving images, which helped to convey the message to the receiving child and increases the effectiveness of media applications by improving learning and reducing the time needed in training as it leads to attracting attention, and the attractive effect of images attracts the attention of viewers for longer periods than traditional works (1).

Alaa Sadiq (as cited by Zavotka, 1993; and Rockport, 1998) as saying that the computer in the Graphic display is a good and effective tool in teaching many concepts and skills, and that the attractive effect of drawings Graphic attracts the attention of players for longer periods than traditional business (2).

The results of the training program using motion pictures are consistent with the study of Mona Gad (2000), Osman Mustafa and Hisham Abdel Halim (2003) that the use of animation has a positive impact in the development of basic motor skills (3) (4).

He also agrees with the Study of Iman Al-Sisi (2012) that the use of motion pictures has a positive effect on the level of technical and digital performance in the education of the javelin competition (5).

It also agrees with the Sandy Moatli Study (2011) that the use of Graphic has a positive impact on the digital level of the long jump competition for under-12s (6).

This achieves the validity of the first imposition

Conclusions:

In accordance with the study aims, hypothesis, limitations, tests, the methodology and the statistical analysis, it can be concluded that:

1. The proposed training program with moving pictures has a positive impact on the development of the basic skills of field and track competitions (running, throwing, jumping) for children with mental disabilities (Down Syndrome).

2. There are improvements between the pre- and post-tests in the basic skills of field and track competitions (running, jumping, throwing) of the study sample.

Recommendations:

The researcher has recommended that:

1. Guidance of the proposed training program using moving images to develop the basic skills of field and track competitions.
2. Giving more attention to the use moving images in training people with special needs of sports activities in general and track and field in particular.
3. Guidance of the proposed training program using motion pictures in reducing the severity of behavioral disorders for children with mental disabilities (Down syndrome).

4. Giving more attention of using training of the sports activities in general and track and field in particular in order to reduce children's emotional behavioral disorders who suffer from intellectual disability (Down's Syndrome).
5. The necessity of using moving and animation images in training the sports activities.
6. Conducting similar studies by using the animation images in order to confirm the effectiveness of using the moving images on different samples.

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