The Effectiveness of an Educational Psychotherapy Program in Developing Reading Using Animals for Autistic Children

SuhairSabbah/*Al-Quds University, Jerusalem, Palestine*
Bushra Albadawi/ *Al-Quds University, Jerusalem, Palestine*
Anwar Almaslamani / *Al-Quds University, Jerusalem, Palestine*

Abstract: The study aimed to demonstrate the effectiveness of the psycho-educational treatment program in developing reading using animals for children with autism, using a quasi-experimental design. The study sample included an autistic child from the special education categories in the city of Jerusalem. using animal (horse), test before and after using the program, observation, educational program,It was found that there was an improvement in the level of reading, and an improvement in the child's psyche. In light of the findings of the study, it is recommended to establish a specialized center to train children according to the appropriate animals, and to spread this culture among parents and institutions concerned with following up on autistic children.

Introduction:

"Teach your children swimming, archery and horse riding," Omar Ibn Al-Khattab said. More than one thousand and four hundred years ago and modern studies confirmed that the benefits and benefits of horse riding are not limited to normal people, but that there are many benefits and benefits of horse riding for people with various disabilities and disorders. In recent years (the twentieth century and the beginning of the twenty-first century), the increase Paying attention to the category of people with special needs, and after conducting research it was found that they have capabilities and capabilities in other aspects, just like the ordinary human being; For this reason, special schools and centers have been built to provide the necessary care and attention to them and to lead their lives normally like other ordinary people, in addition to the recent developments that have taken place in special education in various sciences such as psychology and sociology, and then special education has become a specialized field with its educational and psychological roots concerned with people who are not Ordinary people in terms of their characteristics and characteristics, and the development of special and appropriate educational programs and plans for them.

Many special education teachers and primary education teachers may see that good reading is linked to repetition. Children who read more are much better than others because they take advantage of their abilities and do not let them stagnate. Using traditional programs to improve reading for children may be successful or unsuccessful, which may cause psychological pressure; For this reason, teachers must devise new programs in order to reach children who have difficulty in mastering reading and lack enthusiasm. It is preferable to provide them with well-being during education because it is one of the important aspects in the development of children, and plays an important role in the short and long term for the student and here comes the role of schools in promoting student welfare; By introducing new means and programs in

education, such as using the animal-assisted therapy strategy to intervene in the treatment of reading problems because it is an enticing and enjoyable activity for students and parents. (Diner, 1984).

Animal-assisted therapy is a type of treatment in which animals are used to reach the desired goals. This treatment has been used in hospitals, especially in psychotherapy sessions, in order to obtain education more easily. Among the animals that meet these criteria are dogs, horses, Birds, and others. Previous (foreign) studies indicate that involving these animals in the education process significantly reduces high blood pressure and heart rate and gets rid of anxiety in students. Also, many participants in these treatments have become confident in themselves and feel excited and safe as a result of dealing with these animals (Nimr&Lundahl, 2007).

Mariaskamen , (2005) explore animal-assisted therapy as a strategy for reading intervention, using the experimental method with tools such as animal books, interviews and surveys on a sample of four students and their parents. The result was rapid increase in reading comprehension and skills, confidence and self-esteem in their relationships with classmates, frequent completion and delivery of their homework, improved hygiene, development of Strong and emotional relationships with animals. As for a study Man Single Show (2008) a descriptive study at the University of Kansas aimed at describing information about animal-assisted therapy. Study sample: grades 2-4. Tools: questionnaire - 13 dogs - tests. Teachers noted increased students' self-confidence, a love of reading, and decreased truancy. Hattor (2010) at the campus of Toledo University of Health Sciences aimed at evaluating professional attitudes and knowledge using animal therapy with three-part questionnaire distributed to 1,000 people, children can not only benefit from this treatment always, but it is an aid. Formation of positive attitudes and attitudes regarding the effectiveness of animal-assisted therapy.

A study (Bradley Jones, 2017) is an empirical study in the College of Education and Health Sciences at the University of Dayton aimed at identifying the barriers that professionals find in order to educate the general public and provide them with suggestions about the school environment and animal-assisted therapy. Study sample: Kindergarten to eighth grade. the results showed a positive perception of reading with the help of dogs, and the children who used this treatment with them were more likely to increase their reading fluency and comprehension compared to the children who did not use this treatment.

Study (Hana Schina, 2020) An experimental study at Monash University. Australia Study objective: To promote positive participation and a sense of accomplishment in children when reading. Study sample: primary school children, the result indicates that including the dog in the therapeutic process works to add a positive stimulus and add positive feelings and a sense of achievement in children while reading.

The aim of the study (Lynette ArnasonHart, 2021) at the University of California, Davis, to provide remedial support in early education settings and primary and secondary schools as well to support student well-being and enhance a sense of belonging in the school activities such as reading programs / dogs. The result: increased positive feelings, enhanced involvement in educational activities, reduced levels of absenteeism, improved academic participation, flexibility of programs to meet school needs.

A study (Samantha Wingate, 2021) experimental at Georgia Southern University. The aim was to explore the effect of animal-assisted therapy on children with learning disabilities in reading and writing skills.Study sample: 169 students from New Jersey Elementary School improvement in academic reading, students' oral fluency.

Through previous studies, it was found that the child's reading and stumbling in front of the animal is much less than his reading and stumbling in front of his peers, this would make him feel confident, strong and motivated to learn. Children who have difficulties in reading and language need a variety of unique methods to attract their attention, as these methods work on their development in a better and noticeable way, increase their social confidence in themselves and strengthen their personality. To be a participant, works to reduce tension among students. Also, animal-assisted therapy is very effective because it is considered a valuable tool for improving speech in children who suffer from reading difficulties and reduces stress and tension for them, and this therapy has helped professionals and therapists to increase professional and social interaction among them.

The animal is considered a healer in the learning process, but it is not so because it does not know what the goals are required and the therapeutic process. Rather, it is a catalyst and facilitator of the process. Very few realize that the integration of animals into the therapeutic environment and the establishment of a relationship between the student and the animal helps to advance in psychotherapy. Psychological treatment is important, especially for children who were abused in their youth because they find it difficult to express themselves and have no self-confidence. Therefore, the idea of using the animal as a healer and assistant in the educational process will have positive and effective results (Parish Place ,2016).

This research comes in order to answer the following questions:

1. The effectiveness of an educational psychotherapy program in developing reading using animals for autistic children.
2. How will children respond to animals while reading them and will they feel happy?
3. What are the pros and cons of this type of treatment and is there an improvement in the level of reading?
4. The difference in the child's performance before and after using the animal in teaching reading?

Terminology of study:

Pet therapy:

It is a broad term that includes animal-assisted therapy and other activities in which animals are assisted. Animal-assisted therapy is a growing field that uses dogs or other animals to help people recover and better manage health problems, mental health disorders and reading difficulties (MAYO CLINIC).

Psycho therapy tutorial:

It is the use of psychological methods in the form of regular personal interaction, with the aim of helping to change and overcome problems in a desirable way, and aims to improve the individual in terms of well-being and mental health, as well as aims to solve or mitigate disturbing behaviors, beliefs, motives, thoughts and emotions, and improve relationships and social skills. Some psychological therapies are considered evidence-based to treat some mental

disorders. There are more than a thousand different types of psychological therapies, some of which are slight differences, while others differ radically, as a result of using different concepts or techniques from psychology. Most psychological therapies involve personal (person-to-person) sessions between the client (or patient) and therapist, but other times the treatment is done in a group form as in family therapy. The therapist may be a professional in the field of mental health, such as a psychiatrist or psychologist, or He may have other backgrounds that enable him to be treated, and he may be licensed to do this work legally (Wikipedia).

educationl programs:

A set of educational materials, such as: prescribed textbooks, accompanying free reading books, specific teaching aids, evaluation methods used, as well as various miscellaneous activities, and this program is taught during a specific period of time, whether in relation to the aspects that the student learns (Ibrahim, 2009).

Difficulties or dyslexia:

The term dyslexia is originally derived from two Greek words: dyes, meaning weak or inadequate, and lexis, meaning words or language. Written problems arise through reading, spelling, writing, speaking and listening. Definitions of dyslexia vary according to the theoretical background of the researchers. Medical workers indicate that dyslexia is a condition that results from neurological and genetic causes, and causes due to maturity, and psychologists say that dyslexia is due to specific problems in reading and is not seen as causes (Harri and Waller, 1984). Also, reading difficulties are defined as a partial inability to read or understand what the individual is reading silently or aloud, and that this deficit is continuous and not commensurate with the academic level of the student's mental ability (Abdul Rahim, 1988, p. 112).

Autism:

It is a type of developmental disorder caused by a defect in the central nervous system, characterized by a halt or deficiency in the development of sensory and language perception, and consequently the inability to communicate, communicate, learn and social interaction. These symptoms are accompanied by an introverted tendency that isolates the child who suffers from it from his surroundings so that he lives closed in on himself, hardly feeling what is around him and the people, events or phenomena that surround him, and is also accompanied by integration into stereotyped movements, or outbursts of anger in reaction to any change in the routine (Al-Shibli, 2001, p. 11).

Methodolgy:

The experimental method with a quasi-experimental design was used to detect the effectiveness of the psychoeducational treatment program in developing reading using animals for autistic children.

Study Sample:

The study sample included a child from the special education categories, especially autism

How to choose the sample:

Autistic child: through previous knowledge of him and his parents.

Sample selection conditions:

1.He does not have a mental disability,

2. He loves animals and is not allergic to them.

3.a slight degree of disability.

4. IQ level above average to high.

Sample selection procedure:

Autistic child: parental and child consent.

Sources of data and information collection:

1.Secondary sources: where the theoretical aspect of the research relied on secondary data sources, which were represented by articles, previous (foreign) studies, and reports that dealt with the subject of the study, in addition to research and reading on various Internet sites.

2. Primary sources: collecting primary data by interviewing the parents and using the questionnaire as a main tool to know the pre and post evaluation of the individual sample, which was designed especially for this purpose.

Instruments used:

1.Scales: Gilgame for Autism.

3. Interview (parents, children).

4. Animal (horse)

5.A case study.

6.Test before and after using the program.

7. note

8. Tutorial

Gilliam Autism Scale - Second Edition (2 - GARS): A battery used to detect the degree of autism in a child.

Procedural definition: It is a scale used to assess individuals aged (3-22) who suffer from severe behavioral problems (problems in communication, social interaction, appearance of strange stereotyped behaviors). Issued in (2006), and its purpose is to help specialists diagnose autism. The items of the scale have strong and clear apparent validity, because they are based on the definition of autism prepared by the American Autistic Society, as well as on the diagnostic criteria for autism provided by the American Psychiatric Association in the Diagnostic and Statistical Manual of Mental Disorders, and it has excellent psychometric properties, because it has proven its effectiveness in identifying people With autism, parents or professionals can complete this scale in a time period ranging from(Myles,2007,p160).

Interview:

Both the parents and the child were interviewed before starting the treatment, to inform them of the program's effectiveness and its objectives.

Animal:

After meeting the parents and the child, the child's favorite animal was known, and on the basis of it, the favorite animal was selected, which is the horse.

Case Study:

Autistic child n/b:

 General background about the child:

The child's age ranged from eight years, the mother did not experience any symptoms during pregnancy and the birth was very normal. The child did not suffer from any problems during

his growth, he faced problems with pronunciation, but with the follow-up of the parents and early intervention, the child is now talking well, prefers a little loneliness and is very afraid for his little sisters, stubborn does anything that comes to his mind, loves to move a lot and cannot Sitting continuously and for a long time, he grew up in a speech therapy kindergarten and now he is in the ambassadors school, he has a little distraction and lack of attention as he is distracted by the simplest things, his communication with others is a little weak, he is often sensitive if he is criticized by others, he likes to He provides his requests without delay (it is difficult for him to wait), his words are different from others, and he cannot execute things accurately.

Achievement reading test before and after using the program (Arabic, English):

A pre and post assessment of the reading level of the sample child in Arabic and English.

The test includes nine main questions:

From the whole to the part:

⬚ First: The child reads a story with the formation of movements(Arabic language).

And monitor his mark (10).

⬚ Second: The child reads compound sentences with the formation of movements (Arabic language).

And monitor his mark (10).

⬚ Third: The child reads random words with the formation of movements (Arabic language)

And monitor his mark (10).

Fourth: The child reads the letter indicated by the teacher with the formation of movements (Arabic). And monitor his mark (10).

⬚ Fifth: The child determines the letter that the teacher reads with diacritics (Arabic language) and monitors for it a mark (10).

Sixth: The child reads random words with letters (English).

And monitor his mark (10).

⬚ Seventh: The child reads all the letters _ uppercase and lowercase _ (English).

And monitor his mark (10).

⬚ Eight: The child sings al the letters with music (English).

And monitor his mark (10).

⬚ Ninth: To distinguish between all letters and read them in Arabic and English.

And monitor his mark (20).

Where one mark is given for the correct answer and zero for the wrong answer, and the final test score is out of (100).

Correlation of the score of each question with the total score:

Quistions	Total Mark	After program	Before Program
Arabic Language	10	6	3
For the child to read a story with the formation	10	8	2

The child reads compound sentences with formation	10	9	5
The child reads random words with formation	10	9	4
The child reads the letter indicated by the teacher with formation	10	9	5
The child determines the letter that the teacher reads with formation	10	4	0
English			
The child reads random words with letters	10	8	2
The child reads all the letters _ uppercase and lowercase _	10	9	4
The child sings all the letters with the music	20	18	10
To distinguish between all letters and read them in Arabic and English	100	80	35

Tutorial based on animal therapy strategy:

The achievement reading test was used based on the behavioral school theory, which adopted the idea of programmed education, which is "providing knowledge to the learner in accordance with his needs and abilities, relying on a codified methodology that may use printed tools, simple educational machines, computers, and other means of technology." Modern education, away from traditional education. (Yourbook Cultural Site, 2020)".

Study Procedures:

⬚ Reviewing previous studies related to the subject of the study in order to benefit from them.

⬚ Permission from (parents, children)

⬚ Approval is obtained through an official and signed letter

⬚ The reading test was developed based on the theory of the behavioral school that adopted the programmed education system.

⬚ Apply Instruments.

⬚ After applying the pretest to the sample child, the answers were analyzed and the difficulties faced by the child were identified.

⬚ A schedule has been set for applying the sessions at the required time, and the application extended from 01_10_2021/01_12_2021.

⬚ After completing the treatment program, a posttest was conducted to see the improvement that the child experienced and to monitor the mark for him.

⬚ Presenting and discussing the results and making recommendations and proposals.

An educational psychotherapy program using animals:

Aim of treatment:

⬚ Reading the letters correctly with their movements (Arabic language)

⬚ Read the passages correctly with their movements (Arabic language).

⬚ Read words and sentences correctly with their movements (Arabic language).

⬚ Read the letters correctly (in English)

⬚ Distinguishing between audio and phonetically similar letters (in Arabic and English)

⬚ Providing psychologicalsupport to the child (psycho-educational) in order to improve his academic level in reading, and increase his self-confidence.

⬚ Create a stimulating and fostering environment for the child through the animal

⬚ Increased ability to focus

Spatial and temporal limitation of the application of the therapeutic program based on the treatment strategy by the animal.

The treatment program was applied in the city of Jerusalem and the application time extended over two months (01_10_2021 / 01_12_2021), with four sessions per month, with a duration of 20 minutes for each session.

Auxiliary Instruments:

A pre and post assessment test for reading.

⬚ Stories

⬚ Animal (horse(

⬚ Therapy through music

⬚ Basel (vehicle camel)

⬚ Cards (for letters)

⬚ Colorful book to read letters.

⬚ Tablet (iPad), laptop

⬚ Questionnaire

Application mechanism:

An educational psychotherapy program has been prepared in the development of reading using animals for autistic children. Within the following steps:

⬚ Defining the general objectives of an educational psychotherapy program using the animal strategy

⬚ Applying the reading test (before and after) for the sample child.

⬚ Determine the most important difficulties faced by the sample child.

⬚ Based on the achievement reading test, the sessions were set.

Results related to the first question of the study:

The first question states (the effectiveness of the psychoeducational therapy program in developing reading using animals for autistic children).

The effect of the therapeutic program significantly increased the child's motivation in his love of reading, especially in front of his favorite animal.

This is also proven by the achievement reading test, pre and post, as the result doubled in half from a mark of 35 to a mark of 80. The experiment was very successful, according to the testimony of the child's parents. Where it was found after the application of the therapeutic program to the extent of its effectiveness and its impact on the child from the psychological and educational aspect, that is, his motivation and love for reading increased, especially after using the strategy of animal therapy, and he was also able to learn letters in English with horses through music. We find that there are clear differences in the parents' opinion before and after the use of the treatment program. In the beginning, there was a great hesitation on the part of

the mother in how to implement the idea because it is out of the ordinary, but after applying a session in front of the mother, her view of the positive changed as she requested to add the English language to the program.

The results related to the second question of the study:
The second question states (How will children respond to animals while reading them and will they feel happy?)
The child responded to the animal greatly while reading it, and he was happy and excited for the next session.
Proof of this, the child significantly improved from the psychological and educational aspect through the use of an out-of-the-ordinary strategy, which is the animal therapy strategy, which led to an improvement in achievement performance.
The child responded well while reading the animal in this short time, and he felt happy because of the use of a strategy he loved, evidence of that. The child used strategies such as imitating some animals (monkey) physically and vocally.

Results related to the third question of the study:
The third question states (What are the pros and cons of this type of treatment and is there an improvement in the level of reading?).
There are advantages and challenges to this type of treatment, and there is an improvement in the level of reading. The evidence for this is the result of the pre-test and post-test for the child.
Challenges:
1_ Difficulty finding a suitable place.
2_ Difficulty obtaining a trained animal.
3_ This type of study needs a longer time.
Positives:
1_ Distinguish the similar letters in Arabic and English.
2_ Improved pronunciation of some letters.
3_ Motivation to learn and psychological improvement.
5_ The mother interacted with the idea of the program and added the idea of introducing the English language to it.
6_ Providing psychological support to the child (psycho-educational) in order to improve his academic level in reading, and increase his self-confidence.
7_ Create a stimulating and supportive environment for the child through the animal.
8_ Increase his ability to focus.

The results related to the fourth question of the study:
The fourth question states (the difference in the child's performance before and after using the animal in teaching reading?).
There are clear differences in the child's performance and psychology before and after using the animal in teaching reading.
As proof of this, after using the therapeutic program, the child was able to distinguish between similar letters in Arabic and English, especially after adding the treatment through music.
In addition to the presence of a clear indication in the total score of the pre- and post-test.

Summary of the study results:

An improvement in the level of reading.

The child's psychological improvement.

6.5 Recommendations in light of the findings of the study

1_ Establishment of a specialized center for this education.

2_ Training the appropriate animals for children.

3_ Spreading this culture among parents and institutions concerned with following up on autistic children.

4_ Using animals of all kinds to treat autistic children in education.

5_ Awareness of special education teachers with this type of treatment, in order to get them out of the indoctrination system in learning, and to find modern and innovative ways.

References:

1. El-Sherbiny, Fawzy; El-Tanawy, Effat (2015), Methods and Strategies for Teaching People with Special Needs, Al-Kateb Publishing Center, first edition, Damietta, Egypt.
2. Khalil, Hussein, (2019), the effectiveness of an educational program based on a multi-sensory strategy for treating reading and writing difficulties among students of resource rooms, master's thesis, Jerusalem, Palestine.
3. The Behavioral Theory: Its Pioneers and Principles (2/08/2020), link: www.your-book.com.
4. Pet therapy: animals and their role in treatment,(29/07/2021), link: www.mayoclinic.org.
5. Psychotherapy, Wikipedia, link: https://ar.m.wikipedia.org/wiki.
6. Kaymen, Maria S. (2005). "Exploring animal-assisted therapy as a reading intervention strategy."
7. Shaw, Donita Massengill. (2013). "Man's best friend as a reading facilitator." The Reading Teacher 66.5 365-371.
8. Hightower, Robyn M. (2010) "Assessment of occupational therapists' attitudes and knowledge of animal-assisted therapy.".
9. Jones, Bradley S. (2017*) Animal Assisted Therapies and Reading Interventions: Attitudes and Perceptions of Educators.* Diss. University of Dayton,.
10. Henderson, Linda, et al. (2020). "An evaluation of a dog-assisted reading program to support student wellbeing in primary school." *Children and youth services review* 118: 105449.
11. Wingate, Samantha. (2021). "Exploring the Impact of Animal-Assisted Therapy on Children's Literacy Skills in Speech-Language Interventions".
12. Henderson, Linda, et al. (2020). "An evaluation of a dog-assisted reading program to support student wellbeing in primary school." *Children and youth services review* 118 105449.