

THE ROLE OF PLAY ACTIVITIES IN IMPROVING EXPRESSIVE LANGUAGE SKILLS IN A CHILD WITH DOWN SYNDROME

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Abstract:

Purposeful play is more than necessary for children with Down Syndrome, given that they have special needs, given their apparent isolation and poverty in social relationships, with their constant need for care from the adult community, in light of their slow growth and linguistic, mental, and cognitive delay that continues to accompany them all their lives

Therefore, this study aimed to improve the expressive language skills of this group by subjecting them to a set of play activities supervised by a specialized educator within the center for caring for mentally disabled children. The sample consisted of 05 children with Down Syndrome who were chosen intentionally. Their IQ ranged between 57 And 70 degrees on the Stanford-Beneit scale, between the ages of 10 and 14 years. In order to achieve the objectives of this study, the quasi-experimental approach was used, a one-group design with two pre- and post-measurements, with the application of the Expressive Language Skills Scale prepared by the researcher Hind Mahmoud Abdel Samie Ahmed, which resulted in The results of the study show that directed play activities work effectively to improve expressive language skills in children with Down Syndrome affiliated with a center for the care of the mentally disabled.

Keywords: Play activities, expressive language, a mildly disabled child with Down syndrome.

Introduction:

A child with special needs, whether young or old, has no choice but to try to adapt to this or that disability. He is forced to live his daily life under the weight of these disabilities. The reality for him remains the same and does not change, which is that this disability has hindered his adaptation. And his harmony with his living reality, and created him as a helpless person to some extent, so he remains a helpless person who needs someone to take care of his needs and fulfill them for him. (Al-Rousan, 2007, 83)

At the forefront of these people with special needs are children with Down syndrome. These children differ from the rest of their normal children in that they are slow in performance and understanding, which appears in the difficulty of performing tasks that require a degree of intelligence, as a general ability, in addition to the appearance of a kind of inability in the use of words and sentences, which often occurs in... The form of fragmented sentences, limited in meaning, not controlled by precise linguistic and grammatical rules, which reflects negatively on their ability to establish normal and complete social relationships with others, and disrupts their communication, adaptation and integration into society, which makes them almost completely dependent in their daily lives on adult society (family). (Al-Roussan, 2007, 83)

In order to facilitate the task of their integration into their society - even if only partially - these children must be pushed to develop their preparations for life by trying to give them many life skills, and develop their abilities to communicate naturally and express their daily needs by developing their expressive language skills, as it is no secret that No one knows that language is the first window through which a child with Down Syndrome looks at his society, through which he expresses his needs, hopes and pain. It is his only way to communicate with the outside world, but in light of the weak linguistic balance of this group due to its slow learning and the apparent inability acquisition compared to normal children, in order for a child with Down Syndrome to succeed in overcoming his disability, he must develop his linguistic repertoire with a huge number of words and meanings related to different living situations, which the disabled child may experience morning and evening. (Papagno&Vallar, 2001, 516)

This may develop in him the skill of expressing his needs in sentences with complete vocabulary and meanings that are understandable to everyone, and controlled by precise grammatical rules. This will ensure that he deals with others and interacts with them without the help of anyone, and makes it easier for him to express his feelings and needs, thus

achieving (He achieves) a respectable social status for himself among The rest of his community.

Hence, there has become an urgent need to care for this group through specialized programs and purposeful educational and recreational activities, whether within their families and under the supervision of a supervisor who is an expert in the nature of their disability, or through their affiliation with specialized centers that facilitate the acquisition of life skills that help them integrate into their social environment through what is provided to them. Purposeful activities and programs, including focusing on developing the skill of eating, dressing appropriately, the skill of self-direction, taking responsibility, and the skill of balanced social interaction, in addition to developing their expressive language skills, so that life skills and language skills are integrated in facilitating their integration with their requirements. They live their daily lives successfully, and they become satisfied with themselves, which makes it easier for them to accept their situation as people who are different from others, but they are not powerless, but rather active within their family and community environment.

Play activities directed to entertain this group of children with Down Syndrome are considered one of the most important methods of motivating them to overcome their disability, given that the disabled child, like other children, is naturally inclined to play, because play in the lives of children carries the same importance as work in the lives of adults. Play has great and exciting benefits, whether for children or adults, for the disabled or for the healthy, because it attracts the child's attention and his desire to learn, and provides him with the appropriate environment to continue doing so without feeling bored, through which he is motivated to learn on his own, giving him the opportunity to use his senses and mind and increase his abilities. To interact with others in the various situations created by any play activity in which he engages. (Boumlata, 2020, 59) Play is one of the basic features of childhood, and it is the main driver and actor in the processes of physical and mental maturity.

Psychological and social for the child, through which the child opens up to his world, and it is his means towards understanding himself, knowing his abilities and needs, and the limits of his social responsibilities.

Play, as Viola Al-Bilawi defined it, is a spontaneous activity that the individual practices in order to bring joy to himself, as it aims to have fun and consume energy and effort without any external forces or motives moving or directing it.(Al-Anani, 2014, 16)

The problem of the study:

Caring for children with physical and mental disabilities is a human and civilized principle that cannot be bypassed in any society, regardless of the principles or goals on which this society is based. Caring for them and managing their affairs is a responsibility that falls first and foremost on their families - the people closest to them - and then on the responsibility of the state and its various institutions. Specialized in the field of physical, psychological, mental, and social care and follow-up, including specialized educational centers, charitable societies, educational institutions, and others.

Children with Down Syndrome are considered normal, like the rest of their peers, but they have some characteristics that appear in the form of slow performance. They also show difficulties in performing tasks that require a type of intelligence - such as general ability - and they also face many language problems, as they are unable to use only a few words and sentences have limited meanings during their communication with others, which reflects negatively on their ability to establish healthy and mature social relationships, and their communication, adaptation, and integration into their social environment. This is what makes them dependent on others to fulfill their daily needs, and so that these children can In order to succeed in building an acceptable social status among the rest of society, they must improve their expressive linguistic skills, which will inevitably allow them to build bridges of communication with others and establish rules for understanding with them on all issues that attract their attention.

According to Hallahan, language is represented by the ability of the human brain to produce the appropriate linguistic messages to complete the communication process. This is done by identifying the appropriate messages and then sending them to the devices responsible for speech so that they ultimately appear in the form of words or other sounds. This is the individual's ability to express what He wants to use speech. (Al-Khouli,2021, 868)

It is every human being's window to communicate with the outside world, and from it we can confirm that language is the main tool that all human beings rely on to communicate with each other, and for this reason they intended to develop the words and expressions of their languages and update their meanings to suit their living conditions and requirements. If this is the endeavor of all ordinary people, then what is the goal of all ordinary people? Think about people with special needs who find it difficult to use and employ the language of their society. Therefore, it was necessary to provide children with Down syndrome with a huge amount of words and meanings that will help them deal and interact with others with ease, express

clearly their feelings and social needs, and push them towards forming relationships. Positive social interaction with their peers and other members of society, especially adults. This requires attention to this category of children with the aim of helping them develop some linguistic skills, and investing them repeatedly in responding to the various life situations they go through daily, by programming many activities that take the character and form of group or individual games, which these children desire. Considering that it takes on an entertaining and exciting nature, which motivates them to engage in it without feeling bored or tired.

For children, play remains a natural behavior to which they are naturally inclined. Through its activities, they unleash their latent abilities and demonstrate their distinction and mental, psychological, and social characteristics. Therefore, play has a therapeutic value for this special group in what is related to the development of their expressive language skills (the ability to use words, sentences, and linguistic methods). In a correct manner, with sound grammatical rules, through oral expression, in addition to the fact that play is one of the best means to help these children acquire new attitudes, values, customs, traditions, and ideas.

Hence the question of this study emerged, through which we tried to determine the level of effectiveness of play in improving and developing expressive language skills in children with Down syndrome.

What is the effect of play activities in improving the expressive language skills of children with Down Syndrome who practice them in centers specialized in their care?

Study hypotheses:

1- Main hypothesis:

There are statistically significant differences between the results of the pre-measurement and the post-measurement in favor of the post-measurement on the expressive language skills scale for children with Down Syndrome due to the play activities they practice in the care center for the mentally disabled.

1.1- The first procedural hypothesis:

There are statistically significant differences between the results of the pre-measurement and the post-measurement in favor of the post-measurement on the expressive language skills scale in the skill of making sounds among children with Down Syndrome due to the play activities they practice in the care center for the mentally disabled.

1.2- The second procedural hypothesis:

There are statistically significant differences between the results of the pre-measurement and the post-measurement in favor of the post-measurement on the expressive language skills

scale in the skill of linguistic and grammatical structure among children with Down Syndrome due to the play activities they practice in the care center for the mentally disabled.

1.3- The third procedural hypothesis:

There are statistically significant differences between the results of the pre-measurement and the post-measurement in favor of the post-measurement on the expressive language skills scale in the skill of naming and determining the meanings of things among children with Down Syndrome due to the play activities they practice in the care center for the mentally disabled.

1.4- The fourth procedural hypothesis:

There are statistically significant differences between the results of the pre-measurement and the post-measurement in favor of the post-measurement on the expressive language skills scale in the skill of arranging story-telling of events among children with Down Syndrome, attributed to the play activities they practice in a care center for the mentally disabled.

1.5- The fifth procedural hypothesis:

There are statistically significant differences between the results of the pre-measurement and the post-measurement in favor of the post-measurement on the expressive language skills scale in the linguistic and constructional fluency skill of children with Down Syndrome due to the play activities they practice in the care center for the mentally disabled.

Objectives of the study:

1. Identify the total needs of children with Down syndrome related to the linguistic, mental, communication, and motor aspects.
2. Discovering the nature of the play activities practiced within the specialized center and supervised by the center's educators, and determining how they are implemented, and the extent of their effectiveness in improving and developing some of the skills of children with Down Syndrome.
3. Determine the level of expressive language skills among children with Down syndrome.

The importance of studying:

First: The theoretical importance:

- The theoretical importance of this study lies in an attempt to draw attention to this category of children with special needs with Down Syndrome, and the need to extend a helping hand to them by employing all means to help them integrate into social life quickly, by

enabling them to improve some necessary life skills. To practice their lives normally, especially what is related to developing their expressive language skills.

-Providing guidance and guidance to specialists interested in the development and care of this group of children and their parents.

Second: Practical importance:

- The applied and practical importance of this study lies in trying to diagnose the language skills of children with Down syndrome who are affiliated with the Psycho-Pedagogical Center for the Mentally Disabled, through a measure of expressive language skills.

-Helping those in charge of the pedagogical center determine the most effective play activities in improving the expressive language skills of children with Down syndrome.

Procedural definition of the study variables:

1- Play:

In this study, it is meant procedurally every recreational activity that is purposeful, organized and planned by a specialized educator within a center specializing in the care of children with Down Syndrome, distributed between motor and mental activities, individual and group, free or restricted by rules necessarily known by these children, the aim of which is to add To have fun, improve some life skills and gain new experiences.

2- Expressive language:

In this study, it is meant procedurally by the child's ability to produce linguistic messages in the form of sounds appropriate to multiple situations and communicative intentions, in the form of words, phrases or sentences that indicate a meaning that both the sender and the receiver understand (they agree on their meaning), as these vocal expressions are automatically subject to grammatical and morphological controls. Correct, in addition to some rules without which the meaning is not correct, such as the concepts of space, time and time. Expressive language can be defined in the following language skills:

2-1 **The skill of making sounds:** This is manifested in pronouncing and producing sounds correctly.

2-2 **Linguistic and grammatical structure skill:** It is manifested in the child's ability to build meaningful sentences, employ verbs, know connectors(prepositions and

conjunctions), pronouns, and adverbs of time and place, while using grammatical and morphological rules correctly.

2-3The skill of naming and determining the meanings of things: This is achieved by naming people and things around him.

2-4The skill of arranging the narrative of events: It is embodied in remembering the events of a story, reconstructing its events, determining its details, answering all the questions related to its events, and the ability to arrange the events chronologically.

2-5Linguistic and structural fluency skill: This is evident in language fluency when talking about his feelings, needs, and thoughts.

It is measured procedurally by the score that a child with Down syndrome obtains on the scale of expressive language skills prepared by researcher Hind Mahmoud Abdel Samie Ahmed, where his scores range between 01 and 192 degrees. The closer the child's scores are to the highest score, the higher his expressive language is. It decreased to approach one whenever this indicated the weakness of his expressive language. (Hind, 2022, 1411-1419)

3- Down syndrome child:

What is meant by this is a child who is born suffering from a mild hereditary mental disability, resulting from a defect in the division of chromosome 21, who shows congenital defects in his organs and body functions, including protruding cheeks, a flat forehead, a round head, thick, straight hair, and a large, fissured tongue. These specifications make him appear with the features of Mongolians. Their intelligence level is between 57 and 70, and their ages are between 10 and 14 years.

Search limits:

Research limitations can be identified in the following areas:

Human field: The study sample consisted of five children with Down syndrome, aged between: (10 and 14 Years). They were intentionally chosen from among the children who belong to the Psycho-Pedagogical Center for the Mentally Disabled, in the city of El-Kharroub - Constantine.

Methodological field: The quasi-experimental approach, one-group design (pre-measurement and post-measurement) was adopted.

Spatial field: Psycho-pedagogical center for the mentally disabled in the city of El-Kharroub - Constantine.

Time domain: This study was applied during the first term of the academic year 2022-2023, during the period when the children were subjected to play activities supervised and directed by the center's educators, and the pre-measurement and post-measurement period).

Previous studies:

Previous studies related to the subject of our study are of great importance because of the information and data they contain that were obtained after their completion. They made it easy for us to understand the merits of the subject of our study, and helped us find appropriate solutions to all the difficulties we were exposed to, especially in the stage of applying the expressive language scale and analyzing its results. The previous studies were divided into two parts: the first section was devoted to presenting studies that were concerned with games directed at children with learning difficulties and special needs, and the second section was devoted to presenting studies that were concerned with measuring expressive language skills among children with special needs, especially those with Down Syndrome. The general goal of collecting and presenting these studies remains to extract everything that can be used to complete this study.

First: Studies that addressed the role of play and its activities in improving the linguistic and life skills of children with special needs:

1. **Al-Sayed's study** (2018) aims to attempt to measure the effectiveness of a therapeutic program based on the art of play therapy in treating language deficits in children with mental disabilities at the primary school stage. The study sample consisted of children with mild mental disabilities who were capable of learning. They were divided into Two groups, one experimental and the other control, in each of which there were 10 children whose chronological age ranged between 6 and 10 years, and whose IQ was between 57 and 70 on the Stanford-Binet Intelligence Scale. In addition, the researcher added the Vineland Harmonic Behavior Scale, the Psycholinguistic Abilities Scale, and a play therapy program to develop the psycholinguistic abilities of children with intellectual disabilities who are capable of learning. The study found an increase in the level of phonetic perception skills, visual perception skills, and the development of reading skills and adaptive behavior for children with mental disabilities. Simple, which indicates the effectiveness of the training program based on the art of play therapy. (Al-Sayed, 2018).

2. **Asma Boumalta's study** (2020), entitled *The Role of Play in Improving the Self-Care Skill of Children with Down Syndrome*, which aimed to verify the role of some play activities in improving the skill of caring for the general appearance, maintaining hygiene, and eating in children with Down Syndrome.

The researcher used the quasi-experimental approach based on the design of one group consisting of five (05) male children, whose ages ranged between 6 and 9 years, and whose intelligence score was between 30 and 50 on the Stanford-Beneit scale. They were chosen intentionally from among the children affiliated with the psychological center. Pedagogy for the mentally ill in Al-Tahir - Jijel.

After the pre- and post-measurement, which was after exposing these children to a number of individual and group activities for a significant period, the degree of improvement achieved in the skills of taking care of the children's appearance and hygiene and improving the way they eat food was measured, through the use of an observation card and a self-care skill scale for children with Down syndrome, where the researcher recorded an improvement. There is a tangible difference in the life skills of these children due to the play activities that they practiced daily during their visit to the center. (Bumalta, 2020)

3. **A study by Touati & all.** (2022) that attempted to identify the role of play in developing oral language (production and understanding) among children with mild and moderate mental disabilities. The study included 06 cases who were chosen intentionally (03 cases who practiced playing in the center and 03 cases who did not practice playing in it. Among the children affiliated with the Psycho-Pedagogical Center for Mentally Disabled Children in Rammchi, Tlemcen), their ages ranged between 8 and 9 years, and their degree of disability was mild to moderate, and their intelligence scores ranged between (57 and 72) on the Stanford-Beneit scale. The researcher employed the descriptive approach in order to determine the role of play in language development among mentally disabled children present at the pedagogical center, a comparison was made between the results of the two groups that had recently joined the center and therefore had not yet practiced any structured play activities at the center, and the results of the second group that practiced play at the center because they had joined it for two full years. .

After applying the comprehension and linguistic production test, the study concluded that mentally disabled children who practised playing had better linguistic performance compared to mentally disabled children who did not practice playing, as their linguistic performance

was weak. It also confirmed that play has a major role in developing comprehension and linguistic production in children who practised playing constantly. (Touati Hayat, 2022)

Second: Studies that dealt with measuring expressive language skills in children with special needs:

1. **Al-Ruwaini's study** (2021) entitled A proposed training program for developing the expressive language of mentally disabled children who are capable of learning in inclusion schools at the primary stage, which aimed to develop the expressive language of mentally disabled children who are capable of learning in inclusion schools at the primary stage, through the application of a proposed program for this purpose. The study included a sample of 10 mentally disabled children who could be taught in integration schools at the primary level, who were randomly selected from the children with mental disabilities who could be educated in the Nahdet Misr School in Giza Governorate. The researcher employed the quasi-experimental approach that relied on a one-group design by measuring... Pre and post, where the expressive language measure was applied according to the specific experimental design after applying the expressive language development program. The results of the study indicated that there were statistically significant differences between the scores of the pre-measurement and the post-measurement in expressive skills in favor of the experimental group members, which confirms the improvement of expressive language. For the children of the experimental group as a result of their exposure to the training program, and the effectiveness of this program in developing expressive language among mentally disabled children who are capable of learning in integration schools at the primary level. (Al-Ruwaini, 2021, 274-350)

2. **Hind Ahmed's study(2022)**, entitled The Effectiveness of a Training Program in Improving the Expressive Language Skills of Mentally Disabled Children with Down Syndrome, where the study aimed to attempt to reveal the effectiveness of a training program in improving the expressive language skills of mentally disabled children whose IQ ranges between (55 and 70) on the Stanford scale - the structure of the fifth picture, where their ages ranged between 08 and 10 years. They were chosen intentionally from Al-NamaaCenter for Special Education in the city of Zagazig from among mentally disabled children. Their number was 10 children who were divided equally into a control group and another. Experimentally, after using the training program and the expressive language skills scale for mentally disabled children with Down syndrome, the study found that there were statistically

significant differences between the scores of the experimental group and the control group in the post-measurement on the expressive language scale in favor of the experimental group, which indicates the presence of a strong effect of the training program used in Improving expressive language skills in mentally disabled children with Down syndrome. (Hind Ahmed, 2022, 1404-1435)

3. **A study by Wasfi Abdullah Odeh Samara** (2013) under the title The effectiveness of a training program in improving the expressive language skills of children with Down syndrome, where its author used the quasi-experimental approach with a purposive sample of 16 children of both sexes with Down syndrome affiliated with the Al-Namaa Educational Center. For the city of Irbid and the city of Ramtha in Jordan, their ages ranged from 5 to 10 years. To achieve his goal, the researcher used a measure of expressive language skills for children with Down syndrome, and a training program to improve expressive language skills in the same group of children. The study found significant differences. Statistics between the average scores of the experimental group members and the average scores of the control group members in the post-application on the expressive language skills scale in favor of the experimental group (that) are attributed to the effect of the training program designed for the purpose of improving the expressive language skills of children with Down syndrome.

Comment on previous studies:

These studies have proven that if children with Down Syndrome are subjected to a set of activities supervised by specialists (psychologists, educators specializing in disabilities) that aim to develop and improve some of their linguistic skills, the latter will experience a noticeable improvement, manifested in an improved ability to know the meanings of Words and linking them into sentences with correct meaning and structure, as they became able to retell some stories while acting out some attitudes in theatrical situations in which they assume the roles of characters and imitate their actions, in addition to mentioning the names of the characters and some of the vocabulary associated with them (such as their jobs and professions) (Hind 2022) (Al-Ruwaini) 2021) (Wasfi 2013)

These studies have also proven the presence of a clear weakness in their expressive linguistic abilities (linguistic vocabulary, difficulty in understanding, remembering, and paying attention...) This weakness is clearly noticed before implementing any play activity or any teaching program directed at developing these linguistic skills in them, while These skills improve in a varying manner among them after they repeatedly undergo these activities, and

for fairly long periods (30 days or more), which confirms the necessity of paying attention to them in this regard, especially in what is related to improving their social communication among themselves or with the rest of their peers, through involving them in a manner Continuing with group play activities, role-playing, story-telling and reconstructing events.

It remains only to emphasize that the results of all the studies mentioned have proven that expressive language skills can be improved in mildly disabled children with Down Syndrome (Touati 2022) (Wasfi 2013) (Hind 2022) (El Sayed 2018) while maintaining this improvement if They were not subjected to training programs or purposeful play activities conducted by specialized educators within care centers directed to care for this category of people with special needs.

All studies chose purposive samples due to the specificity of the phenomenon (disabled children affiliated with specialized centers) while employing the quasi-experimental approach, which through its simple procedures (experimental design) facilitated the precise achievement of the objectives of each study (Al-Ruwaini 2021) (Hind 2022) (Wasfi 2013) (Boumalta 2020) (Al-Sayed 2018) As for the study (Touati 2022), it employed a descriptive approach instead of a quasi-experimental approach, as it resorted to comparing the behavioral and linguistic practices of two groups of children attending the same carecenter, one group practiced meaningful play activities for a certain period and the other did not engage in play.

Methodological procedures for the study:

The study sample:

The study sample consisted of five (05) cases of people with Down Syndrome, who were selected intentionally. Their ages ranged from ten (10) years to fourteen (14) years, and they constantly attended the psychological and pedagogical center.

For the mentally disabled in the city of El-Kharroub - Constantine.

Characteristics of the study sample:

- The chronological age of these children is limited to between (10 and 14 years)
- Their IQ ranges between: 57 to 70 on the Stanford Intelligence Scale, fifth picture (amended version) (Abu El-Nil, 2011), where their IQ was determined by the psychologist working at the center, and was confirmed again by the researcher. At the time point in which the study was conducted.

- These children demonstrated social and linguistic communication among themselves, and they also demonstrated flexibility in their dealings with the center's frameworks.

Study Approach:

In addressing the subject of this study, we relied on the quasi-experimental approach, which took the design of one group subject to pre- and post-measurement, after exposing this group after the pre-measurement to a set of play activities determined by the nannies within the specialized center (the psycho-pedagogical center for the mentally disabled in the city of El-Kharroub - Constantine). Then, after playing a group of collective and individual motor and mental games, we measured the effect of different play activities in improving and modifying some of the expressive skills of this group of children, by using in both measurements (pre and post) the researcher Hind Mahmoud Abdel Samie Ahmed's scale to measure expressive language skills. In children with Down syndrome. (Hind Ahmed, 2022, 1416)

Study tool:

1- Play activities:

A set of games used to develop and improve linguistic performance (expressive language) among mildly mentally disabled children with Down Syndrome, aged 10 to 14 years, and supervised by a specialized educator, and are as follows:

- Games to develop the skill of auditory discrimination.
- Voice recognition game, (whisper game, naming and assigning tools for professionals through sound that issued when turned on)
- Games to develop the skill of understanding meaning, (clothes description game)
- Games to develop comprehension skills, (telephone conversation game with a friend, parents...)
- Games to develop expression skills, (game describing daily activities)
- Games to develop linguistic communication skills, (restaurant game, food classification, food ordering)
- Games to develop classification skills, (classifying animals into groups, (birds, reptiles...)
- Games that learn numbers, letters, colors and shapes.
- Musical and singing games, playing the drums and piano, and singing songs collectively, stimulate learning creative expression and developing linguistic fluency.

2- Expressive language skills scale:

The expressive language skills of children with Down Syndrome were measured after engaging them in a group of individual and group games over a period of two consecutive months (60 days), by employing a scale prepared by researcher Hind Mahmoud Abdel Samie Ahmed to measure expressive language skills, which consists of 64 phrases. (Singular) distributed over five dimensions, which collectively represent expressive language skills. It was kept as it is without introducing any change, given that it is an objective scale designed to measure common language skills between two similar environments. This is first, in addition to its high degrees of validity and reliability according to what His owner pointed to him.

The scale included five dimensions that together constitute expressive language skills:

1. The skill of making sounds (17 items)
2. Naming and communication skills (11 items), which includes the skill of naming and determining the meanings of things.
3. Linguistic structure skill, (17 items) and includes linguistic and grammatical structure and construction.
4. The skill of sequencing events (10 vocabulary words) and includes arranging the narrative narration of events.
5. Linguistic expression and construction skills (09 vocabulary words), including linguistic and construction fluency.

Accordingly, the grades that each child can obtain through this scale will range from one grade (01 grade) to one hundred and ninety-two grades (192 grades) as a maximum, meaning that the higher the subject's grades, the more this indicates a high level of his possession and practice of language skills. Expressiveness, and the lower the score obtained, the lower the level of his possession and practice of expressive language skills in his daily life. (Hind Ahmed, 2022, 1419)

Presentation and discussion of study data:

Results of applying the Expressive Language Skills Scale:

A/ Pre- and post-measurement results:

Arithmetic means and standard deviations were extracted, while calculating the difference between the pre- and post-measurements of the Expressive Language Skills Scale and its dimensions, as shown in the following table:

Table N° (01): The difference between the pre- and post-measurements in the expressive language skills scale and its dimensions

dimensions	Average pre-measurement	standard deviation	Mean dimension measurement	standard deviation	The difference between the two measurements
The skill of making sounds	09.20	0.836	13.80	0.836	04.60
Naming and communication skills	11.20	1.303	17.00	1.414	05.80
Linguistic structure skill	12.20	1.788	17.20	1.483	05.00
Linguistic expression and composition skill	04.20	0.447	9.60	1.140	05.40
The skill of sequencing events	06.40	1.673	10.60	0.894	04.20
Expressive language skills as a whole	43.20	///	68.20	///	25.00

By reading the data in the table above, we noticed that the difference values between the pre- and post-measurements, whether for each dimension of the expressive language skills scale, or for the total score for the scale as a whole in the experimental group, were high (high), as it was estimated for the first dimension at: (04.60).), and for the second dimension it was estimated at: (05.80), and for the third dimension it was equal to: (05.00), and for the fourth dimension it was estimated at: (05.40), and as for the fifth dimension we recorded (04.20), while the difference between the results was Both measurements are clearly high, as

the scale as a whole was estimated at: (25.00), which indicates that the play activities practiced in the care center for the mentally disabled have a tangible effectiveness in improving the expressive language skills of children with Down syndrome.

Presentation, analysis and discussion of the results of the study in light of its hypotheses:

➤ **Presentation and discussion of the results in light of the first hypothesis:**

The first hypothesis stated that: There are statistically significant differences between the results of the pre-measurement and the post-measurement in favor of the post-measurement on the expressive language skills scale in the skill of making sounds among children with Down Syndrome attributable to the play activities they practice in the care center for the mentally disabled.

To verify the validity of this hypothesis, we resorted to the statistical significance test (t) for the two correlated samples, and we obtained the following result:

Table N° (02): shows the difference between the study sample members in the pre- and post-measurements in the skill of making sounds

The variable		Sample volume	arithmetic mean	standard deviation	Degree of freedom	T value	Significance level	decision
The skill of making sounds	Pre-measurement	5	9.20	0.837	4	-7.667	0.01	significant
	Dimensional measurement		13.80	0.837				

We noticed from the data in the table above that the arithmetic mean of the study sample members in the total score of the axis of the skill of making sounds in the pre-measurement, which was (9.20), was completely lower than their arithmetic mean in the post-measurement, which was estimated at (13.80), which prompts us To confirm that there is a clear difference between the results of the two measurements, and this was confirmed by the value of the statistical significance test (T test) which amounted to (-7.66), which is a negative value and statistically significant at the degree of freedom (4) and the significance level ($\alpha= 0.01$),

Therefore, we can confirm that this result supported the first hypothesis, which states that there are statistically significant differences between the average scores of the pre- and post-measurements in the skill of making sounds among children with Down Syndrome, and that these differences were in favor of the post-measurement, with a percentage of confirmation of this result estimated at: 99%, according to the significance level mentioned in the table above.

➤ **Presentation and discussion of the results in light of the second hypothesis:**

The second hypothesis stated that there are statistically significant differences between the results of the pre-measurement and the post-measurement in favor of the post-measurement on the expressive language skills scale in the skill of linguistic and grammatical structure among children with Down Syndrome attributable to the play activities they practice in the care center for the mentally disabled.

To verify the validity of this hypothesis, we resorted to the statistical significance test (t) for the two correlated samples, and we obtained the following result:

Table N°(03): shows the difference between the study sample members in the pre- and post-measurements in naming and communication skills

The variable		Sample volume	arithmetic mean	standard deviation	Degree of freedom	T value	Significance level	decision
Naming and communication skills	Pre-measurement	5	11.20	1.304	4	-9.947	0.01	significant
	Dimensional measurement		17.00	1.414				

Through the data of the table above, we noticed that the arithmetic mean of the study sample members in the total score for the axis of naming and communication skills in the pre-measurement, which amounted to (11.20), was completely lower than their arithmetic mean in the post-measurement, which was estimated at (17.00), which confirms the presence of A clear difference between the two measurements, and this was confirmed by the value of the statistical significance test (T test), which reached (-9.94), which is a negative value and

statistically significant at the degree of freedom (4) and the significance level ($\alpha=0.01$), which confirms to us that this result It confirms what was stated in the second hypothesis, which states that there are statistically significant differences between the average scores of the pre- and post-measurements in the naming and communication skills of children with Down syndrome, and that these differences were in favor of the post-measurement, with a confirmation rate for the result reaching:99%, according to the level of significance mentioned in the table above.

➤ **Presentation and discussion of the results in light of the third hypothesis:**

The third hypothesis stated that there are statistically significant differences between the results of the pre-measurement and the post-measurement in favor of the post-measurement on the expressive language skills scale in the skill of naming and determining the meanings of things among children with Down Syndrome attributable to the play activities they practice in the care center for the mentally disabled.

To verify the validity of this hypothesis, we resorted to the statistical significance test (t) for the two correlated samples, and we obtained the following result:

Table N° (04): shows the difference between the members of the study sample in the pre- and post-measurements in linguistic structure skill

The variable		Sampl e volum e	arithmet ic mean	standar d deviatio n	Degree of freedo m	T value	Significan ce level	decision
Linguist ic structur e skill	Pre- measureme nt	5	12.20	1.789	4	-	15.811	0.01
	Dimension almeasure ment		17.20	1.483				

The data presented in the table above indicate that the arithmetic mean of the study sample members in the total score for the linguistic structure skill axis in the pre-measurement reached: (12.20), which is a lower value than the arithmetic mean in the post-measurement estimated at: (17.20), which is What leads us to say that there is a clear difference between the two measurements, and this was confirmed by the value of the statistical significance test (T

test), which amounted to (-15.81), which is a negative value and statistically significant at the degree of freedom (4) and the significance level ($0.01 = \alpha$), and thus We can confirm that this result supported the third hypothesis, which states that there are statistically significant differences between the average scores of the pre- and post-measurements in the skill of linguistic structure among children with Down syndrome, and that these differences were in favor of the post-measurement.

➤ **Presentation and discussion of the results in light of the fourth hypothesis:**

The fourth hypothesis stated that there are statistically significant differences between the results of the pre-measurement and the post-measurement in favor of the post-measurement on the expressive language skills scale in the skill of arranging the narrative of events among children with Down Syndrome attributable to the play activities they practice in the care center for the mentally disabled.

To verify the validity of this hypothesis, we resorted to the statistical significance test (t) for the two correlated samples, and we obtained the following result:

Table N° (05): shows the difference between the members of the study sample in the pre- and post-measurements in the skill of linguistic expression and construction.

The variable		Sample volume	Arithmetic mean	Standard deviation	Degree of freedom	T value	Significance level	decision
Linguistic expression and composition skill	Pre-measurement	5	4.20	0.447	4	-7.962	0.01	significant
	Dimensional measurement		9.60	1.140				

The arithmetic mean of the study sample members in the total score for the linguistic expression and composition skill axis in the pre-measurement was: (4.20), which is a significantly lower score than the arithmetic mean value in the post-measurement, which is estimated at (9.60), meaning that there is a clear difference. between the degrees of the two measurements, and this was confirmed by the value of the statistical significance test (T test), which amounted to (-7.96), which is a negative value and statistically significant at the degree

of freedom (4) and the significance level ($0.01 = \alpha$), which leads us to confirm that this The results reached support the fourth hypothesis, which states that there are statistically significant differences between the average scores of the pre- and post-measurements in the skill of linguistic expression and composition among children with Down syndrome, in favor of the post-measurement, according to the level of significance mentioned in the table above.

➤ **Presentation and discussion of the results in light of the fifth hypothesis:**

The fifth hypothesis stated that there are statistically significant differences between the results of the pre-measurement and the post-measurement in favor of the post-measurement on the expressive language skills scale in the linguistic and constructional fluency skill of children with Down Syndrome attributable to the play activities they practice in the care center for the mentally disabled.

To verify the validity of this hypothesis, we resorted to the statistical significance test (t) for the two paired or correlated samples, and we obtained the following result:

Table N° (06): shows the difference between the members of the study sample in the pre- and post-measurements in the skill of sequencing events

The variable		Sample volume	arithmetic mean	standard deviation	Degree of freedom	T value	Significance level	decision
The skill of sequencing events	Pre-measurement	5	6.40	1.673	4	-4.583	0.01	significant
	Dimensional measurement		10.60	0.894				

We note from the table above that the arithmetic mean of the study sample members in the total score for the axis of 'Skill of Sequencing Events' in the pre-measurement, which was (6.40), was completely lower than their arithmetic mean in the post-measurement, which was estimated at (10.60), which leads us to It is said that there is a clear difference between the two measurements, and this was confirmed by the value of the statistical significance test (T test), which reached (-4.58), which is a negative value and statistically significant at the degree of freedom (4) and the level of significance ($0.01 = \alpha$), and therefore we can confirm

that This result supported the fifth hypothesis, which states that there are statistically significant differences between the average scores of the pre- and post-measurements in the skill of sequencing events among children with Down Syndrome, and that these differences were in favor of the post-measurement. The confirmation rate for this result is 99 %, with the possibility of error occurring at a rate of 01 %, according to the significance level mentioned in the table above.

➤ **Presentation, interpretation and discussion of the results of the main hypothesis:**

The main hypothesis stated that there are statistically significant differences between the results of the pre-measurement and the post-measurement in favor of the post-measurement on the expressive language skills scale for children with Down syndrome, attributed to the play activities they practice in the care center for the mentally disabled.

By examining the results obtained at the level of the partial hypotheses of the study, which are related to the five partial dimensions of expressive language skill, we noticed that they all came in support of the effect of play activities in improving all expressive language skills among children with Down Syndrome, which leads us to confirm that the play activities practiced These children at the Center for the Care of the Mentally Disabled contribute effectively to improving and developing their expressive language skills.

To verify the validity of these results, the values of the statistical significance test (T) were calculated for the two paired samples for the scale as a whole and its dimensions. Then the effect size was estimated by applying the Jacob Cohen (D) equation to the values of the statistical significance test (T test), where it was concluded that Next result:

Table No. (07) shows the effect sizes extracted for the expressive language skills scale and its dimensions.

Dimensions of expressive language skill	t-test value	Degree of freedom	Cohen's value (D)	decision
The skill of making sounds	-7.667	4	-3.429	Large effect size
Naming and communication skills	-9.947	4	-4.448	Large effect size
Linguistic structure skill	-15.811	4	-7.071	Large effect size
Linguistic expression and composition skill	-7.962	4	-3.561	Large effect size
The skill of sequencing events	-4.583	4	-2.049	Large effect size

Expressive language skills as a whole	-14.199	4	-6.350	Large effect size
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Through the table above and after substituting the values of the statistical significance test (t), whose values were statistically significant in Cohen's effect size estimation equation (D) at the level of the partial dimensions of the expressive language skills scale, as well as at the level of the overall result of the scale as a whole, we noticed that all effect size values (D) according to Cohen was greater than: 0.80, which confirms the presence of a large effect size, and that there is an amount of mismatch between the distribution of the pre-measurement scores and the post-measurement scores for the expressive language skills scale. The effect size degrees were (D) according to the dimensions of the expressive language skills scale, in the order as follows:

For the dimension of the skill of making sounds, the effect size value for Cohen (D) was (-3.42), and for the dimension of naming and communication skill, the effect size value for Cohen (D) was (-4.44). As for the dimension of linguistic structure skill, the effect size value for Cohen was (D) (-7.07), while the effect size value for Cohen (D) was (-3.56) for the dimension of linguistic expression and composition skill, and for the dimension of the skill of sequencing events, the effect size value for Cohen (D) was (-2.04).

As for the expressive language skills scale as a whole, and by substituting the value of the statistical significance test (t), estimated at: (-14.19), the effect size reached (-6.35), and thus the amount of mismatch between the distribution of scores for the pre-measurement and the post-measurement reached more than Of (81.20%), the size of the effect of play activities in improving expressive language skills is very large, and therefore, it can be said that this result supports the study's main hypothesis that there are differences between the results of the pre-measurement and the post-measurement in favor of the post-measurement on the scale of expressive language skills among children. Down Syndrome, which confirms that play activities contribute very significantly to improving the expressive language skills of a child with Down Syndrome, which is consistent with the results of the study of (Tawati 2022), (Al-Ruwaini 2021), (Hind Ahmed 2022), and (Wasfi 2013), all of which confirmed the improvement of the performance of linguistically mentally disabled children after practicing a group of play activities, or by exposing them to a training program designated for this purpose, especially children with mild mental disabilities, or those who are capable of learning in primary schools.

General results:

- 1- The results of the study found that play activities have a significant impact on improving the expressive language skills of children with Down syndrome, which are mainly represented in the following skills: (sound production, linguistic structure, naming and communication, sequence of events, linguistic expression and construction).
- 2- The flexibility of play activities and the desire of children to practice them, especially those group activities related to naming professions and the jobs of their owners, classifying animals and their characteristics, and singing, made it easier for educators to perform their tasks, which had a significant impact on developing the linguistic repertoire of these children (acquisition and practice), which improved their language and communication between them.
- 3- Children with Down syndrome have a tendency to form friendships with everyone they come in contact with, whether with their peers, educators, or members of the center's administrative staff. What facilitates the development of these friendships is engaging in activities that children and adults love together, which are playing and singing, which motivates children with Down syndrome to Communicate linguistically with everyone who shares their games with them, thus improving their expressive language skills.
- 4- The study also found that a child with Down syndrome spends much longer playing than other children doing the same play activities. Therefore, they must be separated from other children with various disabilities while they are playing or in any special training program.
- 5- The study found that play activities work effectively in helping a child with Down syndrome to express his feelings and thoughts, and to express his needs more clearly and accurately, after he continues to practice these activities represented in games directed by a specialized educator to stimulate these skills, especially the skill Naming, classification, communication and linguistic structure.

Study recommendations:

- Disseminating diverse and purposeful play activities at the level of all care centers for the mentally disabled, and supervising them by specialized educators so that they bear fruit in a short time, while training parents on how to practice these activities with their

children at home and continuously, to ensure that their impact extends to their disabled children for the longest possible period.

-Pushing children with Down syndrome to make many friendships with children like them, whether inside or outside care centers, with their peers or with those who are older than them, which puts them in constant dialogue with these friends, which enhances in them the desire to develop their linguistic resources (the ability to Free communication in general and successfully), which greatly enriches their receptive and expressive language very quickly.

the reviewer:

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