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Effects of Visual Art Based Activities for Social Skills Development of Children with Down Syndrome

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ABSTRACT

This study is focused on the effect of visual art-based activities for the development of social skills in children with Down syndrome enrolled at a rehabilitation center Step to learn located in Rawalpindi Pakistan. Participants of this study is between the age of 8 to 11 year two boys and one girl. It is a qualitative case study, and an observation-based research method was used. The researcher designed five days art activities-based workshop, by borrowing the framework of Kolb's experiential learning theory (ELT) to see the impact of these art activities on the development of their social skills. Primary Data of this research is collected in the form of photos and videos of the students during the workshop while participants were doing art activities and from semi-structured interviews of the institute's principal and faculty members. The themes of the literature review are derived from the responses of interviews and common words or phrases are color-coded. Secondary data is collected by analyzing the previous work done by students and from their health records. To assess the workshop results, the researcher took help from Dr. Kathleen Quill's developed social skills checklist and from the already designed social skill checklist of Step to learn and developed another checklist. The findings of the study showed that if children with Down syndrome do art-based activities in the group, they can easily learn many essential social skills to lead a more constructive and accomplished life. Art-based activities helped them improve their relationship with peers and educators and enabled them to cooperate, share, and help each other. Not only this, but they also showed very positive results regarding self-helping skills.

Keywords: Art Intervention; Visual Art; Social Skills; Down Syndrome.

There are 46 chromosomes in each cell of a normal person, but the cells of people with Down syndrome contain 47 chromosomes instead of 46. They have an extra chromosome 21, this is why Down syndrome is also known as trisomy 21. It is a genetic disorder. People identified with Down Syndrome can have many physical and developmental issues like language, social skills, cognitive development, self-esteem, and understanding (Bradshaw, 1997) Children with Down syndrome face a lot of difficulties in socializing, they often try to quit or avoid social interaction so that they can avoid challenges, and this continues to worsen as they grow older. (Fidler et al., 2009) (But children with Down's syndrome do have artistic and imaginative qualities and they can learn self-helping and other social skills to live independently without any extra or external support (Dykens, 2007) With the help of artmaking, people with Down syndrome can be integrated into the community but despite this, they are among the most vulnerable and socially neglected people (McGuire, D. E., & Chicoine, B. A. 2002).

Art based activities can play an important role in the improvement of social, critical thinking, problem-solving, and decision-making skills in children with Down syndrome. (David R. Henley Ph.D., 2000) Art activities can create an environment for students with Down syndrome in which they can meaningfully engage to improve learning in multiple ways. (Deasy, Ingram, & Riedel, 2003). As stated by David R. Henley (2000) Involvement of visual arts-based activities can bring a significant change in learning patterns of children with Down syndrome but in Pakistan, there is a lack of informational data, on not only people suffering from Down syndrome but all most about people suffering from all kind of developmental disabilities. (Department, 2002) Improvement of social skills in children with Down syndrome by using art based activities is also not documented furthermore analyses of the social skills literature shows that many definitions about social skills have been suggested, and there is no consensus on a single definition (Merrell & Gimpel, 1998) and to fill this gap of knowledge this research is conducted. The main objective of this research is to observe the impact of visual arts-based activities on the development of social skills of the participants of this research who are suffering from Down syndrome.

Literature review

Overview of Down syndrome and its effects on cognitive, behavioral, linguistic and social skills.

Down syndrome is a genetic disorder that takes place when a person has a full or partial extra number of chromosome 21 (Herron-Foster & Bustos, 2014) Bodily Indicators which identify Down syndrome are features such as single crease on the palm of hands, fewer firm muscles, fold of skin on the inner corner of the eye, the gap between both feet, a small mouth, and sometimes a gold spots in the eyeball. (Asim et al., 2015) Population suffering from Down syndrome have a variety of somatic difficulties and slow development in language, social skills, rational thinking, self-esteem, and mental ability (Hippolyte et al., 2010) Most of the people with Down syndrome feel very low about their self-worth and feels helpless regarding their life controls and they felt that they are very much unheard in their surroundings (Skotko et al., 2011) Children with Down Syndrome not only face problems in learning how to speak properly but they also face many difficulties in learning social skills, intellectual development, and confidence due to their slow cognitive development (Hippolyte et al., 2010). As compare to children who are diagnosed with other developmental disabilities, Children with Down syndrome are found less aggressive and hostile (Maurer & Newbrough, 1987) Children with Down Syndrome suffers less psychological and more behavioral issues, common behavioral issues present in children with Down Syndrome include rigidity, impulsivity and attention seeking (Maurer & Newbrough, 1987). A general thinking that all children are the same is not supported by evidence in fact some children with Down Syndrome are more difficult to manage similarly some have more social developmental difficulties because of their temperament differences and some have less issues (Hippolyte et al., 2010).

Health Concerns that may affect the learning of people with Down syndrome

Commonly known health issues of people with Down syndrome are ear infections, reduced visual sharpness, squint, and increased use of eyesight glasses. These issues ominously affect the learning process of children with Down syndrome (Asim et al., 2015) Besides this underactive thyroid function, the birth of heart- related disease is also a very common health problem of people with Down syndrome (Pandit, & Fitzgerald, 2012). Lethargies, weak muscle, continues discharge from the nose, and constipation is very common as well and these issues can be the cause of less interest in children with Down syndrome in daily activities and social interactions (Asim et al., 2015).

Social development

Social development means the development of social skills like friendships, developing relationships, self-helping skills, and socially acceptable behaviors (Sigman, M., et al. 1999). The ability to understand the task and social functionality of children with Down syndrome is observed to be affected, due to slow cognitive development, however, the intensity of this effect depends on the degree of damage (Carter & Sugai, 1988) Although most people with Down syndrome suffer from lack of social skills development, if they will be provided social competence they can lead a more meaningful life (Sigman, M., et al. 1999). In an academic environment for the group session are more fruitful than individual sessions because these sessions can bring improvement in social skills, mutual support, learning from each other, and self-helping skills in children with Down Syndrome (Gillam, 2004). Family Environment When a family of a Down syndrome child establishes a helpful, loving, encouraging and positive environment it results in to better cognitive and behavioral development and enhanced learning outcomes (Marshall et al., 2015). Those who grow up in supportive and caring families demonstrate very good levels of adaptive behaviors, and those who are not lucky enough to get the opportunity of an understanding and caring family demonstrate tendency of isolation, low self-esteem, doubt and fearful behavior and sometimes aggression and deration. (Marshall et al., 2015). Encouraging and supportive family involvement and good parenting in brought up of children with Down syndrome resulted in these children high levels of independent social functioning and improved understanding of their role and responsibility in society (Marshall et al., 2015).

Linguistic skills and cognitive development Language development have a great impact on all aspects of social development of children with Down syndrome (Martin et al., 2009). Linguistic development is a slow and time taking process in children with Down syndrome but as their linguistic and communication skills develop they feel less hindrance and can explain what they want and how they are feeling in a certain situation in a very better way (Martin et al., 2009). In case of normal child development process, language plays an important role in providing the parameter like mostly children become quiet or control their speech to control their behavior and this also found to be true in many cases of children and teenagers with Down syndrome (Martin et al., 2009) So this can be determined that during childhood children with Down syndrome who progress slowly in linguistic skills are at greater risk to face hindrance in socializing and they need some external support to manage this deficiency especially for long periods of time (Glozman, Janna M. & Tupper, 2004) Social competence and behavior gradually and slowly improves with increase in their age and this is applicable for almost all children with Down Syndrome (Glozman, Janna M. & Tupper, 2004) Some children with Down Syndrome show more dependency and help seeking attitude when they are given any task to complete and because of their slow cognitive development sometimes they act much younger than their age. (Gillam, 2004).

Establishing and maintaining friendships

It is observed that all the people who are around children with Down Syndrome, have a very important role in helping these children to establish, reestablish, and maintaining relationships with families, friends, and people around them (Skotko et al., 2011) Many children with Down Syndrome miss badly those people who were at some point their fellows or have any kind of friendly relation and they verbally and non-verbally both ways shows that they miss them (Moralez, 1991) If children with Down syndrome lost someone with whom they are attached emotionally, they can go to depression and can develop loneliness, anger, and grief in reactions

to the loss. (Maurer & Newbrough, 1987) Children with Down syndrome also learn a lot from their peers and fellows like social, behavioral, and problem-solving skills (Maurer & Newbrough, 1987) Children with Down syndrome who just learns basic academic skills such as reading and writing in their learning processes, may not be as good as those who learned social skills to proceed in life independently (Richman, Stevenson, & Graham, 1982). However if Children with Down syndrome interact with other children and work in groups they can improve social skills (Gillam, 2004) Whereas too much one-on-one support from some helper or teacher can weaken the student's ability to benefit from peers and they don't learn to do work with cooperation and to develop social relationships with people around them (Werts et al., 2006) Kanareff (2002) emphasized that if group-based art activities perform to make some art project it can very much facilitate the participants to enhance and improve their social interaction and social skills.

Effect of art-based activities on People with Down syndrome

Art is a non-verbal way of communication and feelings can be shown using it. It helps people with verbal communication issues, and it allows showing their thoughts and feelings in a non-verbal way (Keun Mae Lee, 2010). Making drawings can be used as tools for measuring and developing cognitive abilities of children or grownups who cannot express in words due to language developmental issues (Cohen, 1980) Through the process of generating art, children with down syndrome can show their feelings and views without speaking, and these non-verbal communications not only reflected the words in mind but also helps to share and promotes social interaction (Keun Mae Lee, 2010). If the learners with Down syndrome are asked to participate in an art-making activity they become more active and show their liking by doing the work with keen interest and people with Down syndrome benefited from art based activities, particularly in building relationships, increasing social networks, and supporting their selves in the community (Mccarroll, 2013) David R. Henley (2000) emphasized on the importance of art activities by saying that developing social skills and making relations is very important for redefining the self-esteem of people with Down syndrome. The process of creating art not only provides people with cognitive disabilities, a better notion of themselves but also helps them in building relations of objects around them. Art-making facilitates them in dissolving anger and also improves their confidence (David R. Henley Ph.D., 2000) Art based activities offer an encouraging and socially accepted pleasant way for people with disabilities to show their self-expression, develop social skills, and resolve confusions, release anger, and calm themselves by making art (Got & Cheng, 2008) Through art practice, children with Down syndrome can connect with their selves, improve self-awareness, and feel safer and secure (Got & Cheng, 2008) People with Down syndrome can show their feelings and views without speaking a single word (Got & Cheng, 2008) The collaboration of non-verbal and verbal communication encouraged social relations and increased social skills in people with Down syndrome (Kanareff, 2002).

Methodology

Qualitative observation based case study method was adopted for this study to answer the research question. Case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 1994) this statement emphasizes that an important strength of case studies is the ability to undertake an investigation into a phenomenon in its context. Thus case studies are a valuable way of looking at the world around us, it uses multiple data sources including two or more of direct detailed observations, interviews, and documents

(Yin, 1994) And Observation methods are useful to researchers in a variety of ways. They provide researchers with ways to check for nonverbal expression of feelings, determine who interacts with whom, grasp how participants communicate with each other and check for how much time is spent on various activities (Schmuck, 1997).

Three students with Down Syndrome are the participants of this workshop, two boys, named Ali age 8, Noor, age 11 years, and one girl named Sana age 10. These are not the participant's real names, the researcher had concealed the identity of the participants as institute don't want to reveal their real names. According to vice principle, Ali had developed linguistic, fine motor and cognitive skills, and already knew how to handle basic art materials like pencils, poster colors, and brushes and also communicate verbally. Sana and Noor had poor fine motor skills their cognitive and linguistic development was also very low, as told by their teacher, they worked mostly with the help of a class. All three participants were enrolled at Steps to Learn Rawalpindi Pakistan. To conduct the present study, researcher designed five days, one hour per day, visual art based activity workshop. Each day new activity was given to participants.

Researcher had designed all five assignments by borrowing the frame work of Kolb's experiential Learning theory. Kolb's model lays emphasis on reflection and experience. This model rests on six assumptions, that learning: (a) is a process; (b) derives from experience; (c) is a dialectic process; (d) is holistic and integrative; (e) is an interplay between an individual and the environment and (f) results in knowledge creation (Kolb, 1984). In this contexts Borehaman says that learning from reflection on experience means learning from experience (Healey & Jenkins, 2000). The learner experiences, thinks, reflects, and then acts again and the entire learning process is critically reflective of the individual's experience and actions (Kolb, 1984). This learning cycle provides feedback which is provides the basis for new action and evaluation of the consequences of the action (Kolb, 1984). Through this lens, the researcher developed the activities of the workshop to find out the answers to the research questions. First four assignments of the workshop were given as individual assignments to the participants. Participants were required to sit in the same room on separate tables. The researchers asked their class teacher to explain the participants about the assignment and let them make the work the way they wanted to make The Last assignment was a group assignment using one big sheet and they were asked to make their artwork on this sheet. Art material which was used in these assignments were paper sticky notes, poster paints, acrylic colors, brushes, different papers, and canvases. The researcher choose these art materials for conducting the workshop because the participants were comfortable with these materials and they had used most of these art materials previously however acrylic colors, canvas and sticky notes were new to them. Harlan, Jane E. also suggested that the best kinds of materials for children with special needs are those which are simple, familiar, and unstructured because these kind of materials can be used effectively within an hour-long session they required very little or no instruction and help the individual to express in various ways. (Harlan, 1992)

Data collection

Primary Data is collected in the form of photos and videos of the students during the workshop (Fasahat, 2021) and from semi-structured interviews of the principal and faculty members of the institute. Themes for the literature review were extracted from the responses of interviews by using color-coding of common phrases and words. Secondary data was collected from the previous work done by students and from their health records. For this study, the researcher's role was of

a non-participant observer. Non-participant Observation involves observing participants without actively participating (Mills et al., 2010).

Data analysis

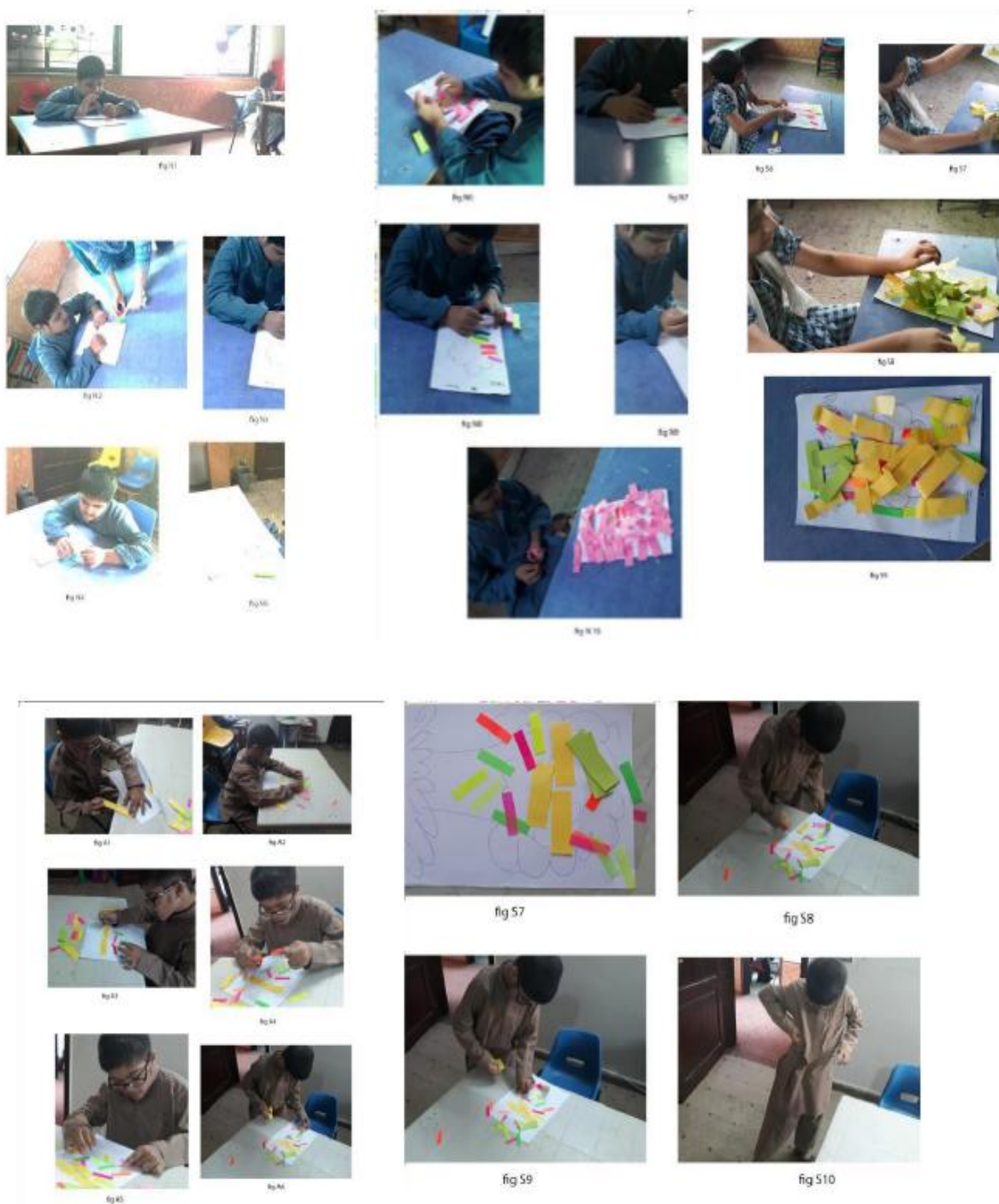
Data were assessed by following a specially designed social skills checklist. This checklist was designed by picking the most common skills from the already designed social skill checklist of the rehabilitation center Step to Learn and from Dr. Kathleen Quill's developed social skills checklist for children with Autism. The reason behind selecting the Dr Kathleen Quill's developed checklist of assessing social skills of children with autism is that analyses of the social skills literature show that many definitions about social skills have been suggested, and there is no consensus on a single definition (Merrell & Gimpel, 1998) that is why researcher took Dr. Kathleen Quill's developed social skills checklist as a reference along the rehabilitation center Step to learn developed social skills assessment checklist as it was covering most relevant social skills which were required to examine in this research and by picking most related social skills from both the pre-developed social skills checklists researcher initiated a personalized social skill checklist especially to assess the development of social skills of the participants of this research. Interviews of faculty and principle of rehabilitation center step to learn were analyzed and then common phrases and sentences were taken out and the researcher used color coding to identify the themes for literature review from these common phrases and sentences.

Observations & Findings

Day -1

On first day of the workshop participants were asked to paste different colored sticky notes inside the outline of a tree printed on an A4 size paper it was as an individual assignment. Participants were required to sit in the same room on different tables placed on a distance from each other in a row the objective of the task was to observe social interaction of children if given new material to work with. All participants were excited when given the multicolored sticky notes and were curious towards the material by touching and observing it again and again.

In the beginning all of them started their work by pasting sticky notes inside the tree outline but ended the task by just putting the sticky notes randomly here and there on the sheet class teacher helped Sana to complete the task as she was unable to figure out in beginning how to paste the notes on paper. Participants were away from each other and less exposed to their fellows working around themselves. Being placed at a distance in the same room discouraged the students from mingling or interacting with each other during the activity. In researcher view the engagement with new art material make the participants forget about the other participants and they didn't show any interaction among others and unfamiliarity of the art material was a hurdle in social interaction.



Day-2

The Activity on the second day was to make paper balls using news prints and second part of the activity was to paint the paper balls using poster colors. The objective of this assignment was to impart self-expression, problem- solving skill and to motivate participants to interact with each other while doing this activity. It was an individual assignment all the participants were sitting opposite to each other in a triangular formation using two tables which were joined with each

other. Ali immediately grabbed the newspapers and started making small sized paper balls by squeezing and pressing small pieces of newsprints. Meanwhile off and on, he was also curious about what his fellows were doing. All the participant were intrigued by each other's reaction to the activity thus were looking at each other while the doing the work. Noor was tapping and rolling the piece of paper with his hand as soon as he noticed Ali who was shaking his hands left and right while grabbing the paper ball, Noor immediately copied this act. Sana observed Ali and Noor carefully, one by one, and then start folding the newspaper paper sheet, Suddenly Noor picked a paper ball and gave it to Ali. Ali gave this to Sana she smiled and threw it towards Noor who was still making paper balls. All the participants start clapping and rejoicing.in the second part of the assignment when they were given the poster paints and brushes Ali, Noor and Sana dipped the paper ball in the paint while doing this act Sana and Noor stained their hands. Noor left the activity and went to the wash room for washing his hands and Sana followed him. Noor noticed some papers had dropped on the floor and so he started picking them.



Fig: C1



Fig: C2



Fig: C6



Fig: C7



Fig: C3



Fig: C4



Fig: C8



Fig: C9



Fig: C5



Fig: C10



Fig: C11



Fig: C16



Fig: C17

Day-3

On the third day, participants of the workshop were required to paint 20x30 scholar paper sheets by dipping their hands in colors. Toy cars were also placed along paints to see in what way children with Down Syndrome use these toy cars during their given task. It was an individual assignment. Participants were sitting in a triangular formation. Two tables were joined Ali and Noor were using these tables and they were sitting parallel to each other however, Sana was sitting right opposite to Ali and Noor on a separate table, but it was very closely placed to Ali's and Noor's table. Noor dipped his right hand in red color and started making hand impressions on the sheet. Noor's hand movement and speed of making hand impressions were quite fast as compared to previous activities done by him using his hands.

He was making these hand impressions on a lower left part of the sheet and avoiding the rest. After a little hesitation Ali also dipped his right hand into yellow color and instead of applying it to his own sheet he started applying on Noor's sheet. When Noor noticed Ali consuming the whole sheet for making hand impressions, he also started using other parts of the sheet. Ali picked up the toy car, dipped its tyres in the paint and start rolling it vigorously on sheets. Later after looking at other participants working, Sana also started using his full hand to paint. When Sana noticed Noor and Ali using toy cars, she left her seat, went to Noor's table and joined them by herself rolling toy car on Noor's sheet. Ali left his toy and started showing his hand to Noor which was fully covered with paint, in response Noor showed his hand to Ali this is for the first time Ali communicated verbally with Noor they clapped on each other hands with a big smile.



Day-4

Fourth day activity was to paint the canvas of 12.5inc x 12.5inc using brushes and acrylic or poster paints. Participants were sitting in the same room in a triangular formation very near to each other, it was an individual assignment. Using acrylic color tubes was a new experience for all of them but no one was looking confused or worried instead they easily opened the paint tubs and started pouring color on canvases. All of them started applying acrylic paints directly by squeezing the tube. Effects of visual art-based activities for social skills development Ali filled the surface of the canvas with a thick layer of black paint. Noor was squeezed the paint tube but applying very less power, it was very obvious that pressing tube was difficult for him. Unlike typical Down syndrome children Sana had nice long fingers and a slim hand, and she was comfortable in squeezing and taking paint out from the tube, by using a brush she spread the paint using brush she got up from her chair and went to Noor's table and helped him spreading paint with her brush. After finishing this activity all of them went together to the washroom and washed their hands. After coming back from washroom Ali picked up his canvas and went out from the art room and reached to some other class where his class teacher was teaching other students, he went straight to his teacher and showed his work to her. When Noor and Sana saw Ali going out of the room they also picked their canvases and went to the same class where Ali was gone they showed their work to their teacher.



Fig: E25



Fig: E26



Fig: E31



Fig: E32



Fig: E27



Fig: E28



Fig: E33



Fig: E34



Fig: E29



Fig: E30

Day-5

The Activity for the fifth day of the workshop was a group activity, participants were required to make whatever they want to make using any material of their own choice. Art material which was provided them was poster paints, acrylic colors, brushes, sticky notes, and colored markers. 24x50 inch long white paper sheet was pasted on a tabletop to work on all the art material was also placed on a table for participants to use. All of three participants were sharing a single big sheet, they started their work by choosing acrylic color tubes and brushes. Sana put acrylic paint first on a plate and then use it on the sheet by taking it out with the help of a brush Ali and Noor were applying the paint directly on the sheet by squeezing it. Noor also tried red color and by looking at Ali.

Sana turned around and picked a basket full of brushes which were not offered to the participants for this activity, she took few more brushes from it and came back to work on the sheet. Sana also used tissue paper to clean her hand and after using it she threw it in bin. All the participants were worked fearlessly, meanwhile, Noor and Ali also used their hands to spread the paint on the whole sheet, In this effort, they made their hands dirty with paints but both of them were happy by looking at their hands they also showed their hands to each other and clapped on each other hands. After finishing the task Ali and Noor went to the washroom and washed their hands. Sana brought her teacher to the art room to show her work she also asked the other students to see her work and invited them using the hand gesture. Other students and teacher appreciated them by clapping for their work.



Fig: E35



Fig: E36



Fig: E43



Fig: E45



Fig: E46



Fig: E47



Fig: E48



Fig: E49



Fig: E50

Conclusion

The results of this study concluded that giving children with Down syndrome freedom and encouragement to create artwork of their own choice while providing materials, support, and a welcoming and non-threatening environment enables them to express themselves freely with more ease. Got & Cheng had also got the same conclusion and they said that giving freedom and encouragement to create an image of their own choice while providing materials, support, and a welcoming environment, art-making enabled children with Down Syndrome to express themselves with more ease (Got & Cheng, 2008). Curiosity about new art materials, different colors and working in smaller chunks of time help them in focusing and not only motivates them but also maximized the learning curve for these children. Watson. S. (2017) also had the same findings he concluded that short attention spans are a very dominant feature of children with Down syndrome and smaller chunks of activities help to support learning and it also ensures maximum learning. Another finding of this study is that if task-related difficulty levels can also gradually be increased but by keeping in mind their limitations to maximize the gain of the objectives of the task. This conclusion is also supported by all the respondents of the interviews they had the same conclusion. Faculty members of the institute step to learn told the researcher that children with Down syndrome love to working with different colors and multicolored things attract them a lot. The most effective way to teach social skills to children with Down syndrome is to teach them using visual clues through art based activities. They understand and respond to art based activities in a more receptive way as they are non-verbal, less restrictive, and less intimidating. Silver had the same view in this regard as he said that with the help of drawing, modeling, and painting, differently-abled children become able to develop the skills needed to resolve their mental confusions and help them in making better social relations (Silver & Lavin, 1977). They might not

be able to share their feelings verbally by using words, but they can express feelings in creative expression through visual arts-based activities. Most of the children with Down syndrome have major difficulties in expressing themselves verbally. There are exceptions, of course, however, many cannot share their feelings through words but can do this easily through visual art activities. Soresi & Nota had the same conclusion they said children with Down syndrome may not be able to express their feelings verbally, but they express their feelings through arts in a very good manner (Soresi, & Nota, 2000).

This study finds out that children with Down syndrome through the employment of art based activities became more expressive, experimental, confident, cooperative, and interactive, and art-making improves their confidence. Henley Got & Cheng had the same view and they said that the process of making art encourages differently-abled children to improve in several social and cognitive areas. (David R. Henley Ph.D., 2000) (Got & Cheng, 2008) By the end of the workshop they not only started working with each other more freely but also expected appreciation from each other and even from their teachers. Art-making offered them more autonomy, a better understanding, and handling of the tasks along with the problem-solving skills required. In this process of art-making, they became more excited while working with each other or in groups in comparison to just taking guidelines from the instructor and individually working on given tasks. Got & Cheng had also stated that group sessions are more fruitful than individual sessions because these sessions can bring improvement in social skills, mutual support, learning from each other, and self-helping skills in children with Down Syndrome (Gillam, 2004) Art based activities helped children with Down syndrome in developing a friendly relationship with their peers and educators during the art-making workshop, with a heightened understanding of the environment and responsibility towards it as they were shown by the initiate of cleaning up of the mess after finishing their work. Kanareff (2002) had the same conclusion he said that better social interaction and improvement in social skills is very much possible by producing and making art and when differently-abled people start learning social skills it brings positive change in their relationships, they also start making progress in confidence, self-esteem, and self-helping skills (Kanareff, 2002). Furthermore, the researcher finds out that visual art based activities also encourage children with Down syndrome to ask for feedback on their work by showing their work confidently and collect appreciation. In this regard, Bowen, Rosal, Got & Cheng also said the same thing they said that the self-image and confidence of children with Down syndrome can be improved through art activities, and by sharing their artwork with other people (Rosal, 2016) (Got, & Cheng, 2008). (Lister, 2009). The findings highlighted that art based activities enhance their self-esteem. Doing arts-based activities on regular basis also brought behavioral changes it allowed them to resolve their confusion and release their negative energies and aggression constructively. Watson's findings were the same as he said that positive reinforcement is a much better method than anything punishing for differently-abled children (Watson, 2017). The process of creating art not only provided an atmosphere for creating exploring and making sense of objects and their surroundings but also improve temperamental issues and enhance self-worth. The researcher's stance got validation from Henley's finding, he found that the process of creating art not only provides a transitional atmosphere for building objects relations but also dissolves anger and improves self-esteem (David R. Henley Ph.D., 2000) Children with Down syndrome became calmer, learned self-helping skills they became more alert, attentive and collaborative while making art and according to Kanareff (2002) improvement in social skills is very much possible by producing and making art

and when differently-abled people start learning social skills it brings positive change in their relationships, they also start making progress in confidence, self-worth, and self-helping skills (Kanareff, 2002). Arts making provided students with Down syndrome powerful way of expressing themselves and understanding their world. Making art also promoted empathy between students. With the help of art-making children with Down Syndrome can be taught to establish friendships, pursue their interests and inclusion in the community Soresi & Nota, (2000) found same they said art-making can equipped learners with non-academic accomplishments such as learning from situations or environment, self-worth, enthusiasm, helping others, better emotional expression, and other social skills (Soresi, & Nota, 2000). By using visual art-based activities creative talents of children with Down syndrome can be recognized and providing them opportunities to express through art can result in enhanced social skills to lead a more successful and accomplished life.

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